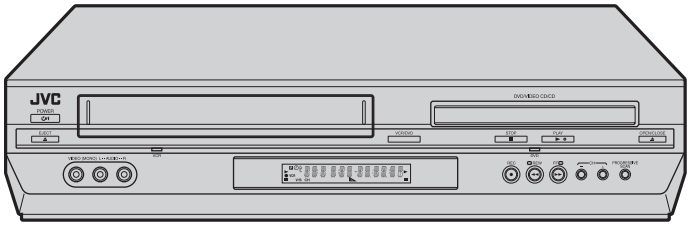
JVC

SERVICE MANUAL

DVD PLAYER & VIDEO CASSETTE RECORDER

HR-XVC30US, HR-XVC33UC, HR-XVC33UM, HR-XVC33US, HR-XVS44UC, HR-XVS44UJ, HR-XVS44US



Super VHS ET (S-VHS model) S-VHS (S-VHS model) Hi-Fi VHS (VHS model) DVD VIDEO dts DIGITAL OUT SQPB (VHS model) 3D-PHONIC DOLBY DIGITAL COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL VIDEO COMPACT disc SUPER VIDEO

HR-XVC30US,HR-XVC33UC,HR-XVC33UM,HR-XVC33US,HR-XVS44UC,HR-XVS44UJ,HR-XVS44US [D3PV1,D3PS1]

TABLE OF CONTENTS

1 **PRECAUTION** 1-3
2 **SPECIFIC SERVICE INSTRUCTIONS** 1-7
3 **DISASSEMBLY** 1-10
4 **ADJUSTMENT** 1-16
5 **TROUBLESHOOTING** 1-25

COPYRIGHT © 2003 VICTOR COMPANY OF JAPAN, LIMITED

No.YD001
2003/10

SPECIFICATION

	HR-XVC30US,HR-XVC33US, HR-XVC33UC	HR-XVC33UM	HR-XVS44US,HR-XVS44UC	HR-XVS44UJ
GENERAL				
Power requirement	AC 120 V, 60 Hz	AC 110 - 120 V, 50 Hz/60 Hz	AC 120 V, 60 Hz	AC 110 - 120 V, 50 Hz/60 Hz
Power consumption				
Power on	27 W		28 W	26 W
Power off	3.1 W			4.9 W
Temperature				
Operating	5°C to 40°C (41°F to 104°F)			
Storage	-20°C to 60°C (-4°F to140°F)			
Operating position	Horizontal only			
Dimensions (W × H × D)	435 mm × 93 mm × 272 mm			
Weight	4.4 kg			
Format	VHS NTSC standard		S-VHS/VHS NTSC standard	
Maximum recording time				
(SP)	210 min. with ST-210 video cassette			
(EP)	630 min. with ST-210 video cassette			
VIDEO/AUDIO (VCR deck)				
Signal system	NTSC colour signal and EIA monochrome signal, 525 lines/60 fields			
Recording system	DA4 (Double Azimuth) head helical scan system			
Signal-to-noise ratio	45 dB			
Horizontal resolution	230 lines		230 lines (VHS)/400 lines (S-VHS)	
Frequency range	70 Hz to 10,000 Hz (Normal audio) 20 Hz to 20,000 Hz (Hi-Fi audio)			
Input/Output	RCA connectors: IN × 1, OUT × 1	RCA connectors: IN × 2, OUT × 1	RCA connectors: IN × 2, OUT × 1 S-Video connectors:IN × 2, OUT × 1	
VIDEO/AUDIO (DVD deck)				
Signal system	NTSC			
Applicable disc	DVD (12 cm, 8 cm), CD (12 cm, 8 cm)			
Audio characteristics	DVD:4 Hz - 22 KHz			
Frequency response	CD:4 Hz - 20 KHz			
S/N Ratio	90 dB			
Harmonic distortion	0.1%			
Wow and flutter	Below Measurable Level			
Dynamic range	90 dB			
Output				
Component-Y	(RCA) 1.0 Vp-p/75 Ω			
Component-PB/PR	(RCA) 0.7 Vp-p/75 Ω			
Audio	(RCA) 2 Vrms, 1 KΩ			
Digital Audio	(COAXIAL) 0.5 Vp-p/75 Ω,(OPTICAL) -21 dBm to -15 dBm(peak)			
TUNER				
Tuning system	Frequency synthesized tuner			
Channel coverage	VHF: Channels 2 - 13, UHF: Channels 14 - 69,CATV: 113 Channels			
RF output	Channel 3 or 4 (switchable; preset to Channel 3 when shipped) 75 Ω, unbalanced			
TIMER				
Clock reference	Quartz			
Program capacity	1-year programmable timer/8 programs			
Memory backup time	Approx. 5 seconds	Approx. 3 minutes	Approx. 5 seconds	
ACCESSORIES				
Provided accessories	RF cable,Infrared remote control unit, "AA" battery × 2	RF cable,Infrared remote control unit, "AA" battery × 2,Conversion plug	RF cable,S-Video cable (4-pin), Infrared remote control unit, "AA" battery × 2	RF cable,S-Video cable (4-pin), Infrared remote control unit, "AA" battery × 2,Conversion plug

- Specifications shown are for SP mode unless otherwise specified.
- E.& O.E. Design and specifications subject to change without notice.
- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

SECTION 1
PRECAUTION

1.1 SAFTY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold.However,in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

1.1.1 Precautions during Servicing

(1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product.When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

(2) Parts identified by the ⚠ symbol and shaded ( ) parts are critical for safety.
Replace only with specified part numbers.

NOTE :

Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

(3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

(4) Use specified internal wiring. Note especially:
- Wires covered with PVC tubing
- Double insulated wires
- High voltage leads

(5) Use specified insulating materials for hazardous live parts. Note especially:
- Insulation Tape
- PVC tubing
- Spacers
- Insulation sheets for transistors
- Barrier

(6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

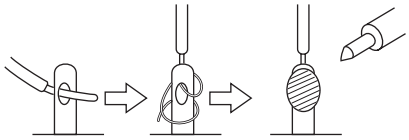


Fig.1-1-1

(7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

(8) Check that replaced wires do not contact sharp edged or pointed parts.

(9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

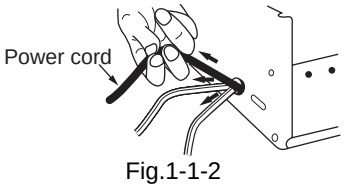


Fig.1-1-2

(10) Also check areas surrounding repaired locations.

(11) Products using cathode ray tubes (CRTs)In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

(12) Crimp type wire connectorIn such cases as when replacing the power transformer in sets where the connections between the power cord and power trans former primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
- **Connector part number** :E03830-001
- **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**

a) Remove the old connector by cutting the wires at a point close to the connector.Important : Do not reuse a connector (discard it).

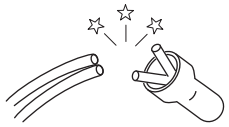


Fig.1-1-3

b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

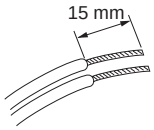


Fig.1-1-4

c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

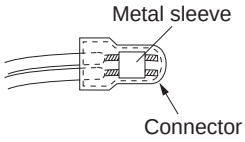


Fig.1-1-5

d) As shown in Fig.1-1-6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

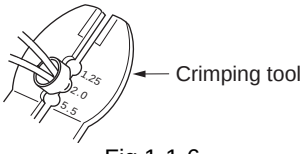


Fig.1-1-6

e) Check the four points noted in Fig.1-1-7.

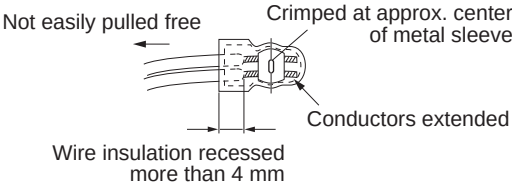

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.1-1-7

1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).See table 1 below.

(2) Dielectric strength test
Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.1-1-11 below.

(3) Clearance distance
When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.1-1-11 below.

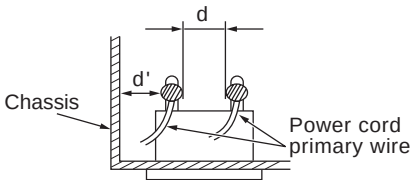


Fig.1-1-8

(4) Leakage current test
Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
Measuring Method : (Power ON)Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig.1-1-9 and following Fig.1-1-12.

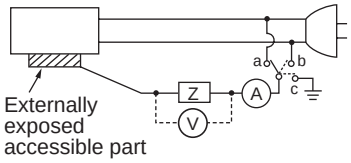
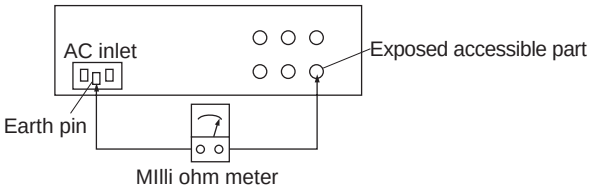


Fig.1-1-9

(5) Grounding (Class 1 model only)
Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).Measuring Method:
Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.1-1-10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

Fig.1-1-10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 minute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦R≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Fig.1-1-11

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Fig.1-1-12

NOTE :
These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

1.2 Preventing static electricity

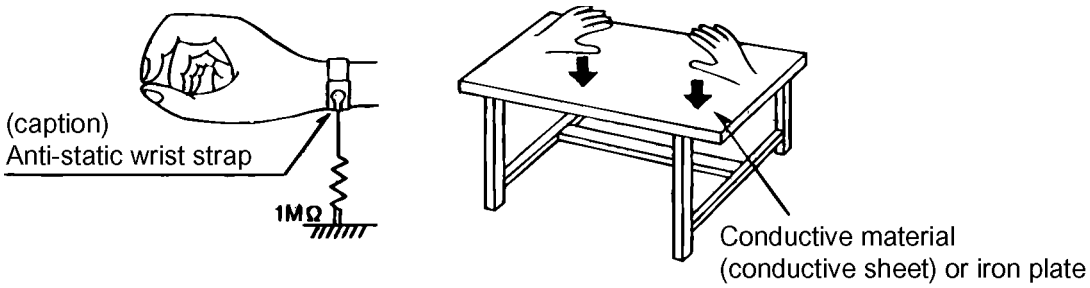
Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players.
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench
Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself
Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup
- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition.
  (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.3 Precautions for Service

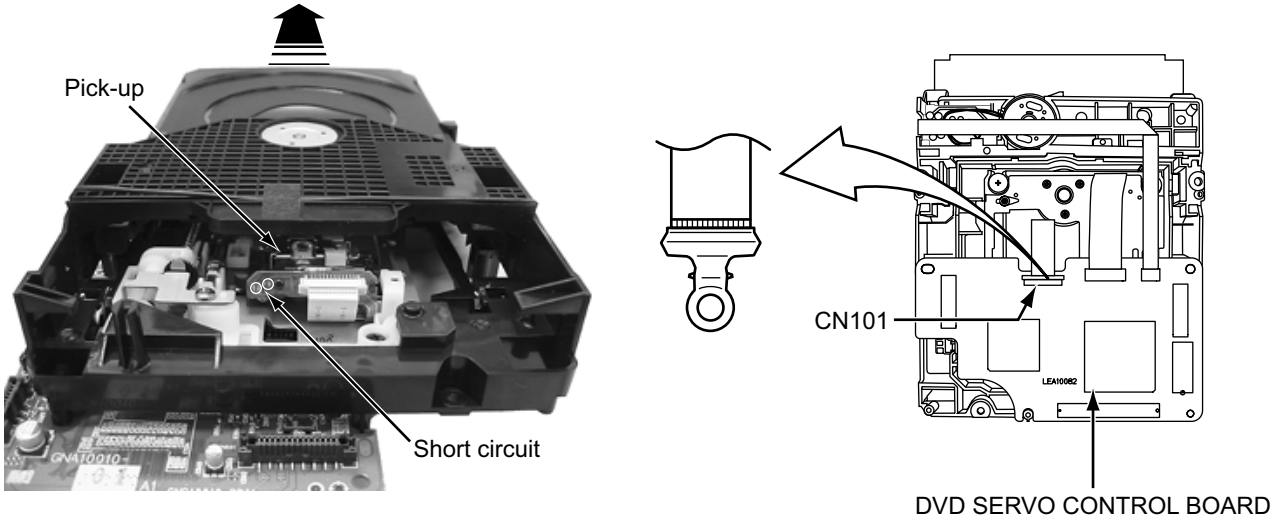
1.3.1 Handling of Traverse Unit and Laser Pickup

(1) Do not touch any peripheral element of the pickup or the actuator.
(2) The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shock.
(3) Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the internal power supply of the tester.)
(4) To replace the traverse unit, pull out the metal short pin for protection from charging.
(5) When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is provided at the center of the flexible wire to open the circuit.
(6) Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the characteristics of the optical block. Do not change the setting of these half-fixed resistors for laser power adjustment.

1.3.2 Destruction of Traverse Unit and Laser Pickup by Static Electricity

Laser diodes are easily destroyed by static electricity charged on clothingor the human body. Before repairing peripheral elements of the traverse unit or pickup, be sure to take the following electrostatic protection:

(1) Wear an antistatic wrist wrap.
(2) With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.
(3) It solders to two short circuit sections on the substrate of a pick-up.
(4) After removing the flexible wire from the connector (CN101), short-circuit the flexible wire by the metal clip.
(5) Short-circuit the laser diode by soldering the land which is provided at the center of the flexible wire for the pickup. After completing the repair, remove the solder to open the circuit.



* Please refer to the SECTION3 DISASSEMBLY method for details.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 Different table of feature

The following table indicates main different points between models HR-XVC30US, HR-XVC33US, HR-XVC33UC, HR-XVC33UM, HR-XVS44US, HR-XVS44UC, and HR-XVS44UJ.

	HR-XVC30US	HR-XVC33US	HR-XVC33UC	HR-XVC33UM	HR-XVS44US	HR-XVS44UC	HR-XVS44UJ
POWER VOLTAGE	120V / 60Hz	←	←	110-220V, 50/60Hz	120V / 60Hz	←	110-220V, 50/60Hz
BODY COLOR	BLACK	PURE SILVER	←	←	←	←	←
REMOCON COLOR	BLACK	GRAY	←	←	←	←	←
S-VHS	NOT USED	←	←	←	USED	←	←
S-VHS ET	NOT USED	←	←	←	USED	←	←
SQPB	USED	←	←	←	NOT USED	←	←
B.E.S.T. PICTURE	NOT USED	←	←	←	A.V. CALIBRATION	←	←
PICTURE CONTROL	NORM/EDIT/ SOFT/SHARP	←	←	←	AUTO/EDIT/ SOFT/SHARP	←	←
REAR L-1 INPUT	NOT USED	←	←	USED(V,L/R)	USED(S,V,L/R)	←	←
REMOTE PAUSE	NOT USED	←	←	←	←	←	USED
BACKUP TIME	5 SECONDS	←	←	3 MINUTES	5 SECONDS	←	←
AUTO CLOCK / JUST CLOCK	USED	←	←	NOT USED	USED	←	←
REC LINK / INPUT	F-1	←	←	L-1	←	←	←
OSD LANGUAGES [INITIAL]	[ENGLISH], SPANISH, FRENCH	←	←	[ENGLISH], SPANISH	[ENGLISH], SPANISH, FRENCH	←	←
REGION CODE	REGION CODE: 1	←	←	REGION CODE: 4	REGION CODE: 1	←	←

NOTE :
Mark ← is same as left.

2.2 Service position

This unit has been designed so that the Mechanism and Main board assemblies can be removed together from the bottom chassis. Before diagnosing or servicing the circuit boards, take out the major parts from the bottom chassis.

2.2.1 How to set the "Service position"

(1) Refer to the disassembly procedure and perform the disassembly of the major parts before removing the Mechanism assembly.
(2) Remove the screws that fix the Mechanism, Regulator board assembly to the bottom chassis. If any other screws are used to fix the boards, remove them also.
(3) Remove the combined Mechanism,Regulator borad and Main board assemblies.
(4) If any other major parts are used, remove them also.
(5) Connect the wires and connectors of the major parts that have been removed in steps (1) to (4). (Refer to Fig. 2-2a.)
(6) Place the combined Mechanism, Main board and other board assemblies upside down.
(7) Insert the power cord plug into the power outlet and then proceed with the diagnostics and servicing of the board assembly.

Notes:

- **Before inserting the power cord plug into the power outlet, make sure that none of the electrical parts are able to short-circuit between the workbench and the board assembly.**
- **For the disassembly procedure of the major parts and details of the precautions to be taken, see "Removing the major parts".**
- **If there are wire connections from the Main board and Mechanism assemblies to the other major parts, be sure to remove them (including wires connected to the major parts) first before performing step (2).**
- **When carrying out diagnosis and repair of the Main board assembly in the "Service position", be sure to ground both the Main board and Mechanism assemblies. If they are improperly grounded, there may be noise on the playback picture or FDP counter display may move even when the mechanism is kept in an inoperative status.**
- **In order to diagnose the playback or recording of the cassette tape, set the Mechanism assembly to the required mode before placing it upside down. If the mechanism mode is changed (including ejection) while it is in an upside down position the tape inside may be damaged.**

- **For some models, the mechanism and board assemblies are attached by connectors only. When carrying out a diagnosis or repair of the boards in the "Service position", make sure that the connectors are not disconnected.**

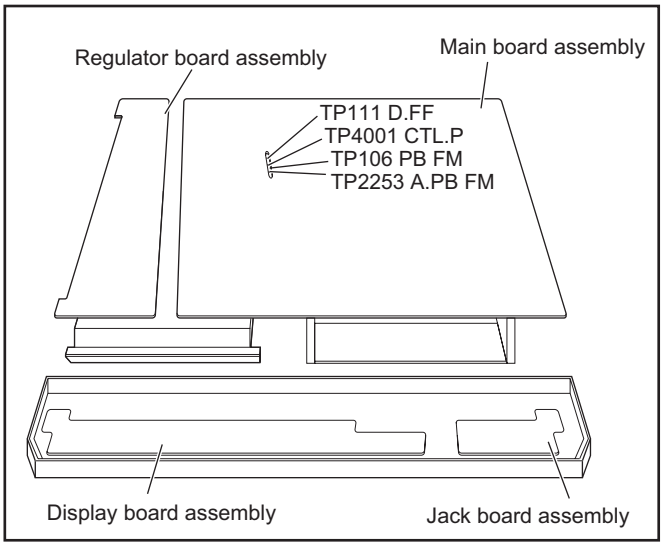


Fig.2-2a

2.3 Jig RCU mode

This unit uses the following two modes for receiving remote control codes.

(1) User RCU mode:Ordinary mode for use by the user.

(2) Jig RCU mode: Mode for use in production and servicing.

When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). As both of the above two modes are stored in the EEPROM, it is required to set the VCR back to the User RCU mode each time that an adjustment is made or to check that the necessary operations have been completed.These modes can be set by the operations described below.

Note:

- **Confirm the RCU mode when exchanged parts. Since some SERVICE PARTS sets the VCR to the Jig RCU mode as initial setting. Therefore please set the VCR to the user RCU mode after replacing the EEPROM.**

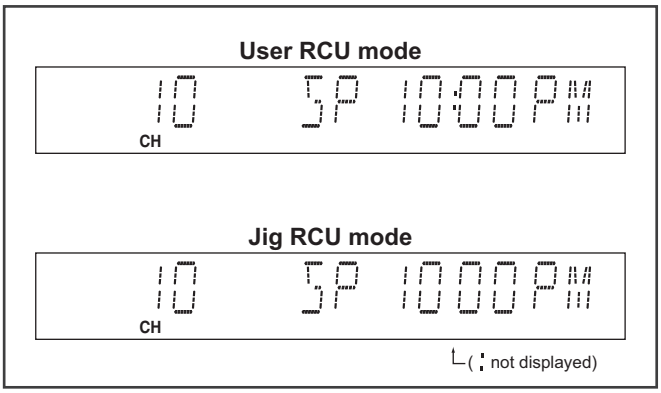


Fig.2-3a User/Jig RCU mode

2.3.1 Setting the Jig RCU mode

(1) Turn on the power.

(2) Press the following remocon keys continuously within 2 seconds " SET UP MENU " → " 2 " → " 8 " → " OK ".
When the VCR is set to the Jig RCU mode, the symbols (" : ") in the time display of the FDP are turned off.
(Refer to Fig.2-3a)

2.3.2 Setting the User RCU mode

(1) Turn off the power.

(2) Press the "REC" and "PAUSE" buttons of the VCR simultaneously. Alternatively, transmit the code "80" from the Jig RCU.

2.4 Mechanism service mode

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "Mechanism service mode".

2.4.1 How to set the "Mechanism service mode"

(1) Set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received)

(2) Transmit the code "E5" from the Jig RCU.

(3) Release the lug of the Cassette holder and then slide the Cassette holder toward the direction where the Cassette holder is loaded by manually.

(4) The cassette holder lowers and, when the loading has completed, the mechanism enters the desired mode.
When the VCR is set to the Mechanism service mode, the symbols ("Timer") in the FDP (LED) are blinked.

2.4.2 How to exit from the "Mechanism service mode"

(1) Unplug the power cord plug from the power outlet.

2.5 As for distinction between two kinds of Main boards

Either of the two different kinds of Main boards is used for HR-XVC30US, HR-XVC33US, HR-XVC33UC, and HR-XVC33UM, according to a period of production.Since the two types of boards have different circuits and parts numbers, check what type of board is used for the product before your analysis and repair work.The following is how to distinguish the Main board.

(1) Remove the Top cover. (See “SECTION 3 Removing the major parts”)

(2) Check whether "CN501" is printed in a space between the Mechanism Assembly and the Rear cover. (See Figure 2-5a.)

With CN501: LPB10207 type
Without CN501: LPB10221 type

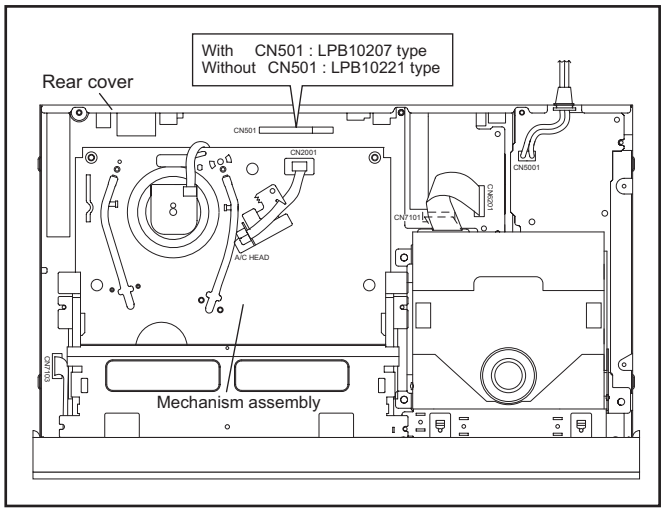


Fig.2-5a

2.6 Maintenance and inspection

2.6.1 Cleaning

Regular cleaning of the transport system parts is desirable but practically impossible. So make it a rule to carry out cleaning of the tape transport system whenever the machine is serviced.
When the video head, tape guide and/or brush get soiled, the playback picture may appear inferior or at worst disappear, resulting in possible tape damage.

Note:

- **Absolutely avoid sweeping the upper drum vertically as this will cause damage to the video head.**

(1) When cleaning the upper drum (especially the video head), soak a piece of closely woven cloth with alcohol and while holding the cloth onto the upper drum by the fingers, turn the upper drum counterclockwise.
(2) To clean the parts of the tape transport system other than the upper drum, use a piece of closely woven cloth or a cotton swab soaked with alcohol.
(3) After cleaning, make sure that the cleaned parts are completely dry before using the cassette tape.

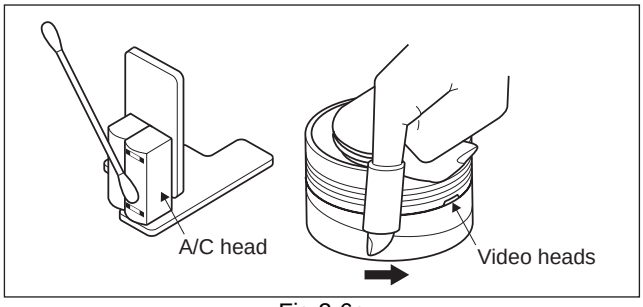


Fig.2-6a

2.6.2 Lubrication

With no need for periodical lubrication, you have only to lubricate new parts after replacement. If any oil or grease on contact parts is soiled, wipe it off and newly lubricate the parts.

Note:

- **See the "mechanism assembly" diagram of the "parts list" for the lubricating or greasing spots, and for the types of oil or grease to be used.**

2.6.3 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning, lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions. However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time, even if the set is not used.

System	Parts name	Operation hours	
		1000H	2000H
Tape transport	Drum assembly	C,X	X
	A/C head	C,X	C,X
	Pinch roller arm assembly	C	C
	Full erase head	C	C
	Tension arm assembly	C	C
	Capstan motor (Shaft)	C	C
	Guide arm assembly	C	C
Drive	Capstan motor		X
	Capstan brake assembly		X
	Main brake assembly		X
	Belt (Capstan)	X	X
	Loading motor		X
	Clutch unit		X
	Worm gear		X
	Control plate		X
Other	Rotary encoder		X

C : Cleaning
X : Inspection or Replacement if necessary

SECTION 3
DISASSEMBLY

3.1 Removing the major parts

3.1.1 Destination of connectors

Two kinds of double-arrows in connection tables respectively show kinds of connector/wires.

⇔ : Flat wire ↔ : Wire ⬌ : Board to board (B-B)

: The connector of the side to remove

CONN. No.	CONNECTOR					PIN No.
WR2a	Main	CN101	⇔	Digital	CN761	40
WR2b	Main	CN103	⇔	Digital	CN762	10

■ **Destination of connectors**

CONN. No.	CONNECTOR					PIN No.
WR2a	Main	CN7103	⇔	Jack	CN7191	11
WR2b	Main	CN3102	⇔	Display	CN7003	14
WR2c	Main	CN3103	⇔	Display	CN7004	14
WR3a	Main	CN2001	⇔	A/C head		6
WR3b	Drum assembly		⇔	Main	CN1	9
CN5302 (CN501)	Regulator	CN5302	⬌	DVD servo control	CN501	22
CN7301 (CN502)	Main	CN7301	⬌	DVD servo control	CN502	22
WR6a	Regulator	CN5303	⇔	Main	CN5313	11
WR6b	Regulator	CN5301	↔	Main	CN5311	11

3.1.2 How to read the procedure table

This table shows the steps for disassembly of the externally furnished parts and board assemblies. Reverse these steps when re-assembling them.

Step/ Loc No.	Part Name	Fig. No.	Point	Note
[1]	Top cover	3-1a	4(S1a),(S1b),3(L1a), 2(SD1a),(P1a),(W1a), CN1(WR1a),	<Note 1a>
	Bracket		2(S1c)	

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order.
These numbers are also used as the identification (location) No. of parts Figures.

(2) Part name to be removed or installed.

(3) Fig. No. showing procedure or part location.

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.
P= Spring, W= Washer, S= Screw, L= Locking tab, SD= Solder, CN**(WR**)= Remove the wire (WR**) from the connector (CN**).

Note:
- **The bracketed ( ) WR of the connector symbol are assigned nos. in priority order and do not correspond to those on the spare parts list.**

(5) Adjustment information for installation

3.1.3 Disassembly procedure

Step/ Loc No.	Part Name	Fig. No.	Point	Note
[1]	Top cover	3-1d	6(S1a)	
[2]	Front panel assembly (Display board assembly) (Jack board assembly)	3-1a 3-1d	4(L2a),5(L2b),2(S2a) CN7103(WR2a), CN3102(WR2b), CN3103(WR2c),	<Note 2a> <Note 2b>
[3]	Mechanism assembly (Drum assembly)	3-1b 3-1c 3-1d	CN2001(WR3a) 3(S3a),(S3b) CN(WR3b) (S3c),(S3d),(S3e)	<Note 2a> <Note 3a> <Note 3b> <Note 3c>
[4]	DVD unit (Bracket)	3-1d	3(S4a),(L4a) 3(S4b),CN5302(CN501) CN7301(CN502)	
[5]	Rear cover	3-1d	2(S5a),(S5b),5(S5c), 3(L5a)	
[6]	Regulator board assembly	3-1d	3(S6a) CN5303(WR6a), CN5301(WR6b)	<Note 2a>
[7]	Main board assembly	3-1d	3(S7a)	

<Note 2a>
- Be careful not to damage the connector and wire etc. during connection and disconnection.
- When connecting the flat wire to the connector, be careful with the flat wire direction.

<Note 2b>
- When reattaching the Front panel assembly, make sure that the door opener of the Side frame (R) is lowered in position prior to the reinstallation.
- When reattaching the Front panel assembly, pay careful attention to the switch lever of the Front panel assembly not to make it touch the switch knob of the Main board assembly from the side.
- When reattaching the Front panel assembly, lift the Cassette door slightly.

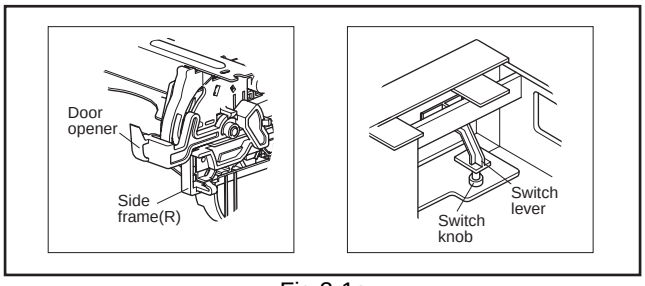


Fig.3-1a

<Note 3a>
- When reattaching the Mechanism assembly, secure the screws (S3a to S3b) in the order of 1,2,3.

<Note 3b>
- When reattaching the Mechanism assembly, be sure to align the phase of the Rotary encoder on the Main board assembly.
- When reattaching the Mechanism assembly, set the “Mechanism assembling mode”. [See “MECHANISM ASSEMBLY SERVICE MANUAL (No. 86700)”.]
- When reattaching the Mechanism assembly to the Main board assembly, take care not to damage the sensors and switch on the Main board assembly.

<Note 3c>

- When reattaching the Drum assembly, secure the screws (S3c to S3e) in the order of c, d, e.

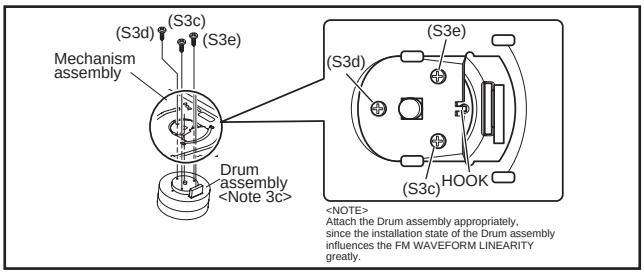


Fig.3-1b

- When handling the drum assembly alone, hold it by the motor or shaft. Be careful not to touch other parts, especially the video heads. Also take care not to damage the connectors.

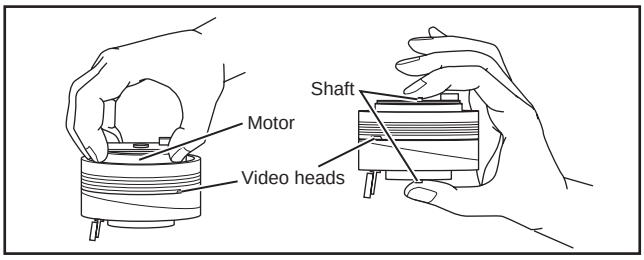
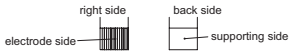


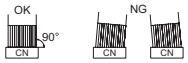
Fig.3-1c

NOTE

1.Insert direction of FCC WIRE as follows.



2.FFC WIRE and DRUM FPC WIRE should be insert as follows.

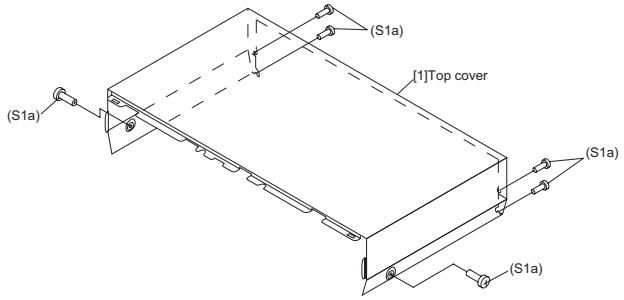


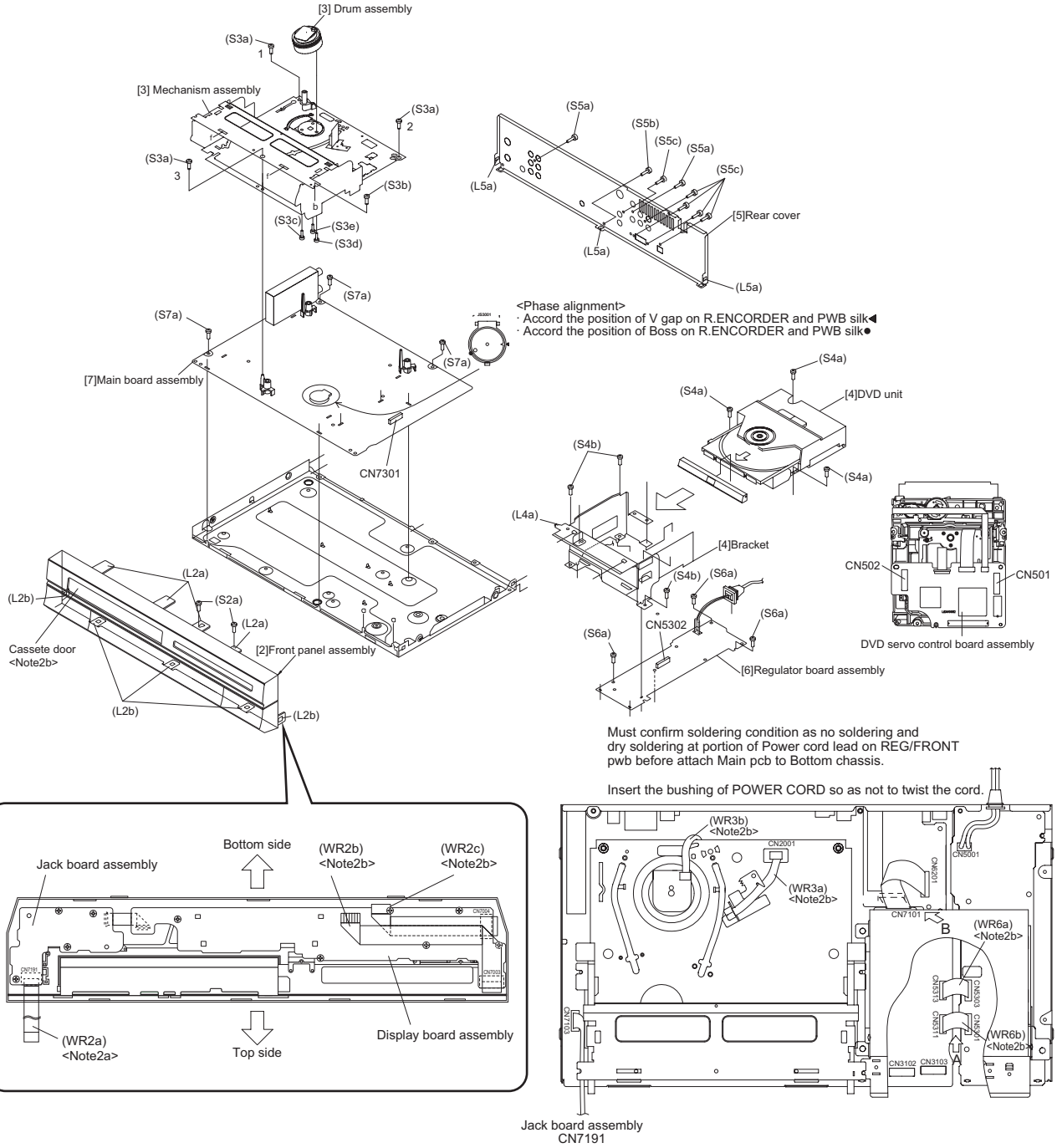
3.Insert the wire to even the root of connector completely at the same time as inserting each wire.

4.Check to see that outside parts.TOP COVER,BOTTOM COVER, FRONT PANEL, etc are fixed certainly to the BOTTOM CHASSIS with SCRWES.

5.Pay attention NOT to make any scratches on FRONT PANEL.

6.Pay close attention not to cut any Sheath of WIRE by sharp edge of CHASSIS while Wireing Process.





Must confirm soldering condition as no soldering and dry soldering at portion of Power cord lead on REG/FRONT pwb before attach Main pcb to Bottom chassis.

Insert the bushing of POWER CORD so as not to twist the cord.

Fig.3-1d

3.2 Loading mechanism assembly

3.2.1 Removing the tray (See Figure 3-2a, Figure 3-2b, Figure 3-2c, Figure 3-2d, Figure 3-2e, Figure 3-2f)

(1) Push **a** of the slide cam on the hole in the right side of the loading base by using a driver until it stops. (See Figure 3-2a.)
(2) The tray comes out. Pull the tray in a front direction until it stops.
(3) Remove the two screws **A** attaching the slide bracket. (See Figure 3-2b.)
(4) Tilt the tray in a direction of the arrow around the point in the left rear part of the tray. (See Figure 3-2c.)
(5) The rail of the tray is removed from **b** of the loading base. Then, remove the tray upward. (See Figure 3-2d.)

Attaching the tray:

Engage **c** of the loading base to the projection of the tray while tilting the tray to the left. Turn the tray in a direction of the arrow, and attach the slide bracket. (See Figure 3-2e.)

Note:

Prior to the procedure above, move the slide cam in a direction of the arrow so that **d** of the slide cam can be inserted in **e** of the tray. (See Figure 3-2f.)

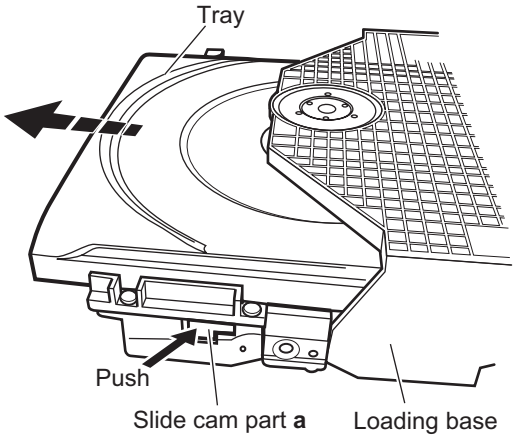


Fig.3-2a

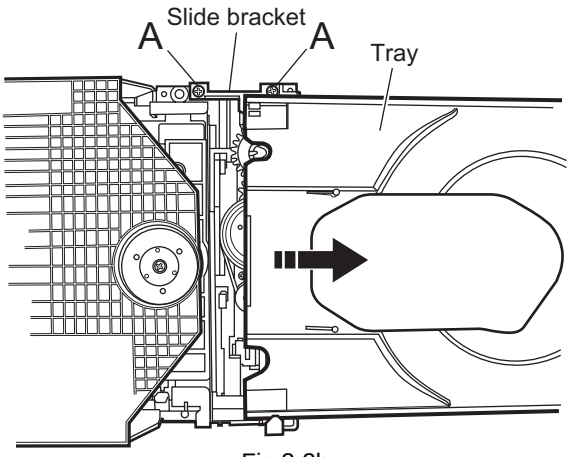


Fig.3-2b

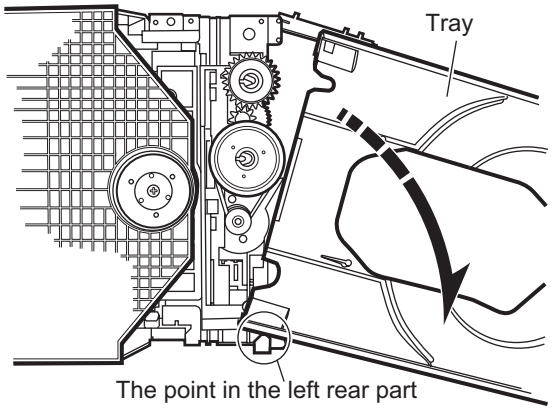


Fig.3-2c

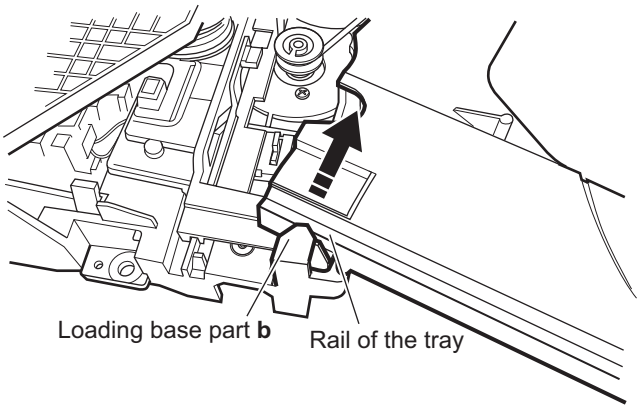


Fig.3-2d

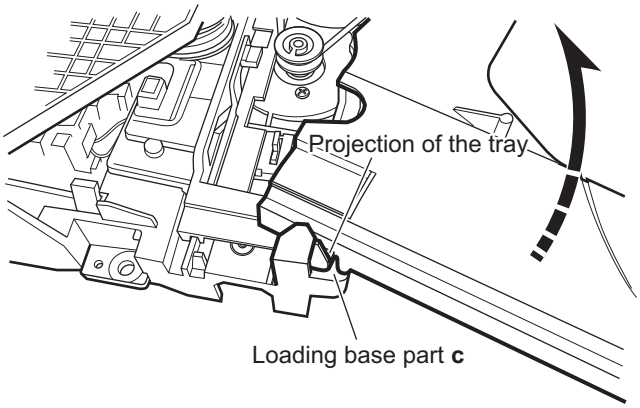


Fig.3-2e

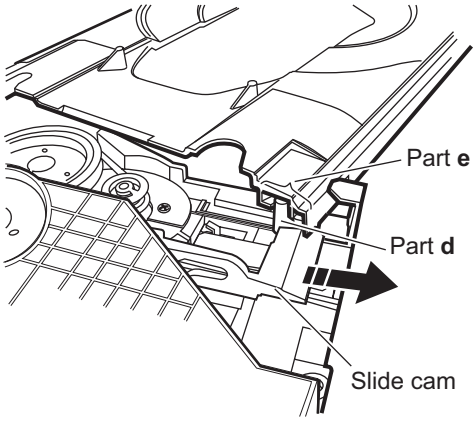


Fig.3-2f

3.2.2 Removing the traverse mechanism assembly (See Figure 3-2g)

Reverse the loading mechanism assembly. Remove the four screws **B** attaching the traverse mechanism assembly. Remove the traverse mechanism assembly upward.

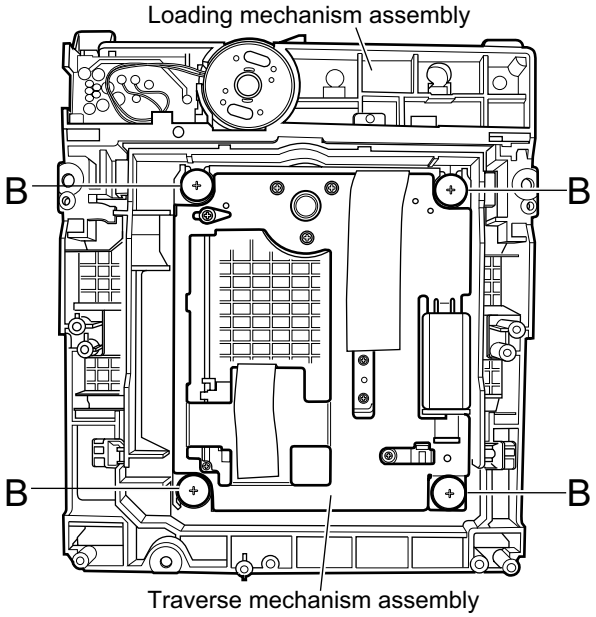


Fig.3-2g

3.2.3 Removing the elevator (See Figure 3-2h and Figure 3-2j)

- Prior to the following procedure, remove the traverse mechanism assembly.
  (1) Remove the two arms of the elevator from the two parts **f** by moving the arms in a direction of the arrow.
  (2) Pull out the elevator in a rear direction.

Attaching the elevator:

Engage the two holes **g** to the two shafts on the front part of the elevator. And then, attach the elevator.

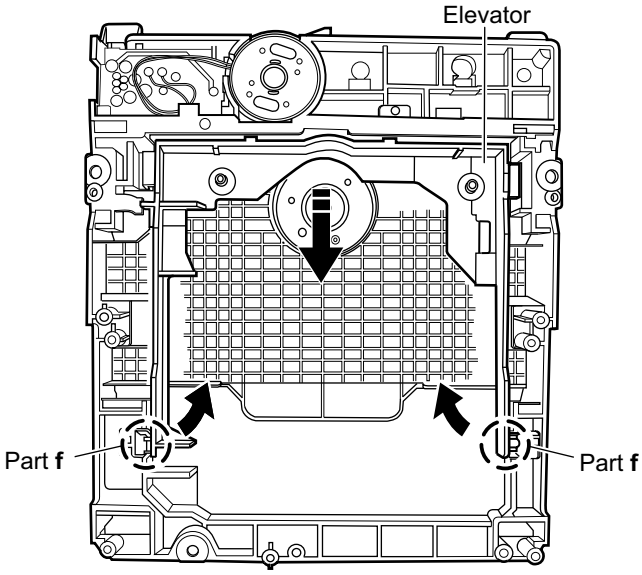


Fig.3-2h

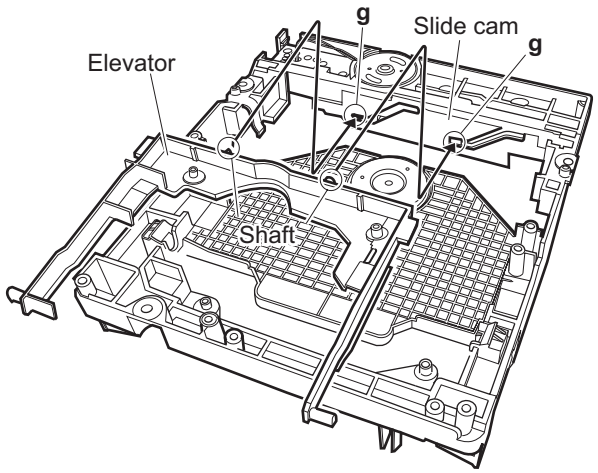


Fig.3-2j

3.2.4 Removing the loading motor (See Figure 3-2k and Figure 3-2l)

- Prior to the following procedure, remove the tray, the traverse mechanism assembly, and the elevator.
  (1) Remove the belt from the pulley.
  (2) Remove two screws **C** attaching the loading motor.
  (3) Remove two solders **h** on the switch board.

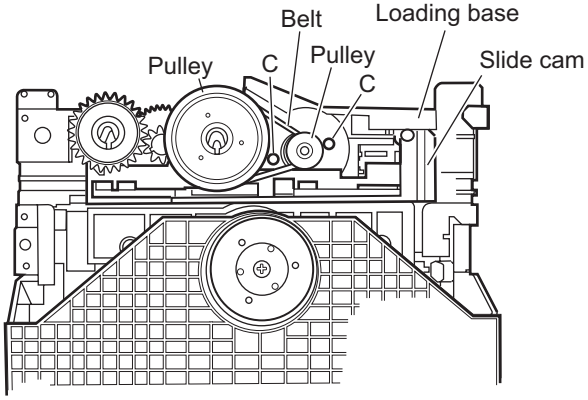


Fig.3-2k

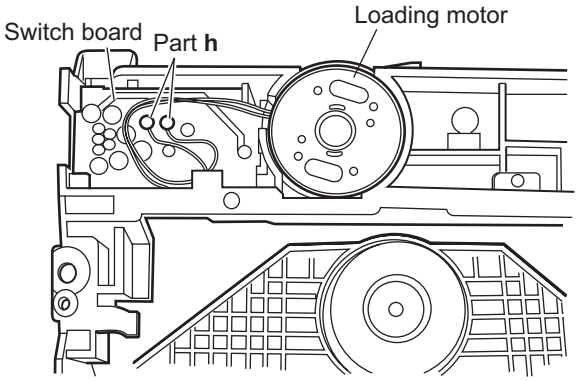


Fig.3-2l

3.3 Traverse mechanism assembly

3.3.1 Removing the pickup (See Figure 3-3a, Figure 3-3b)

- Prior to the following procedure, remove the traverse mechanism assembly.
  (1) Remove one screw **D** attaching the plate.
  (2) Remove the plate and the leaf spring.
  (3) Lift **i** of the shaft **1**, and pull out the shaft **1** from **j**.
  (4) Remove **k** of the pickup from the shaft **2**.

Attaching the pickup:

(1) Engage **k** of the pickup to the shaft **2**.
(2) Insert the shaft **1** in **j**, and attach the shaft 1 to **i**.
(3) Attach the leaf spring, and then attach the plate. Fix the leaf spring and the plate by using the screw **D**.

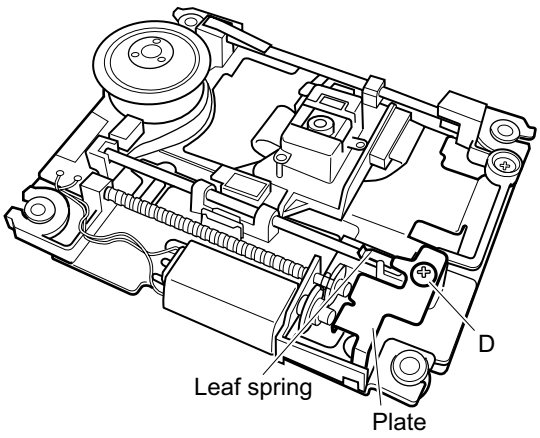


Fig.3-3a

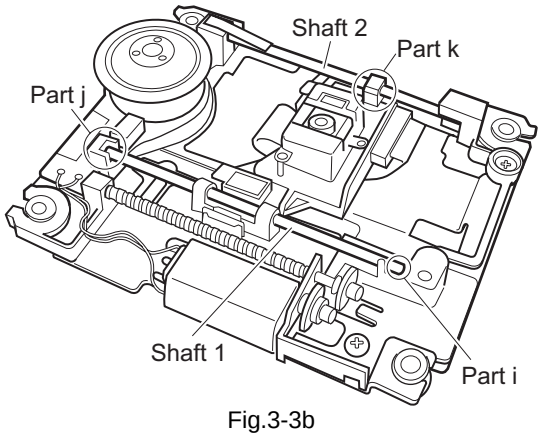


Fig.3-3b

SECTION 4
ADJUSTMENT

4.1 Before adjustment

4.1.1 Precaution

- **The adjustments of this unit include the mechanism compatibility and electrical adjustments. During the performance of this work, be sure to observe the precautions for each type of adjustment.**
- **If there is a reference to a signal input method in the signal column of the adjustment chart, "Ext. S-input" means the Y/C separated video signal and "Ext. input" means the composite video signal input.**
- **Unless otherwise specified, all measuring points and adjustment parts are located on the Main board.**

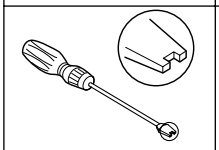
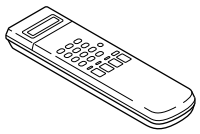
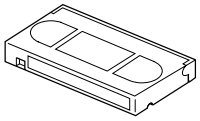
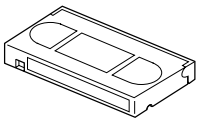
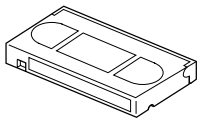
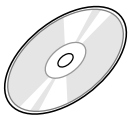
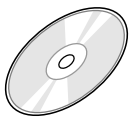
4.1.2 Required test equipments

- Color (colour) television or monitor
- Oscilloscope: wide-band, dual-trace, triggered delayed sweep
- Signal generator: RF / IF sweep / marker
- Signal generator: stairstep, color (colour) bar [NTSC]
- Recording tape
- Digit-key remote controller(provided)

4.1.3 Required adjustment tools

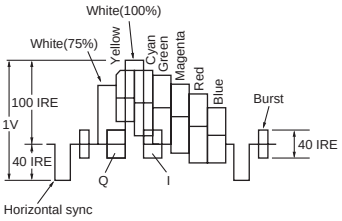
● : Used --- : Not used

	Mechanism compatibility adjustment	Electrical adjustment
Roller driver	●	---
Jig RCU	---	●
Back tension cassette gauge	●	---
Alignment tape(MHP)	●	---
Alignment tape(MHP-L)	●	●

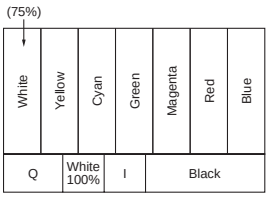
Roller driver PTU94002	Jig RCU PTU94023B	Back tension cassette gauge PUJ48076-2
		
Alignment tape (SP, stairstep, NTSC) MHP	Alignment tape (EP, stairstep, NTSC) MHP-L	DVD test disc VT-501
		
CD-DA test disc CTS-1000		
		

4.1.4 Color (colour) bar signal,Color (colour) bar pattern

• Color(colour) bar signal [NTSC]



• Color(colour) bar pattern [NTSC]



4.1.5 Switch settings

When adjusting this unit, set the VCR mode and switches as described below.

- When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). (See "section 2 SPECIFIC SERVICE INSTRUCTIONS".)

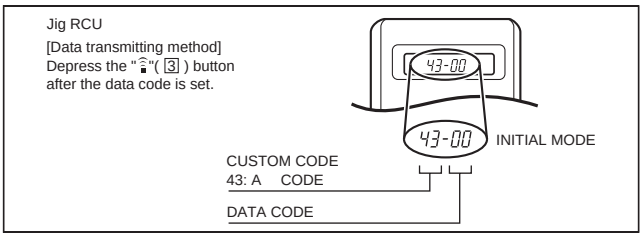


Fig.4-1a Jig RCU [PTU94023B]

- Set the switches as shown below unless otherwise specified on the relevant adjustment chart. The switches that are not listed below can be set as desired.
  If the VCR is not equipped with the functions detailed below, setup is not required.

AUTO PICTURE/VIDEO CALIBRATION/ B.E.S.T./D.S.P.C.	OFF
PICTURE CONTROL/SMART PICTURE	NORMAL/NATURAL
VIDEO STABILIZER	OFF
TBC	ON
Digital 3R	ON
VIDEO NAVIGATION/TAPE MANAGER	OFF
BLUE BACK	OFF

4.1.6 Manual tracking mode (Auto tracking ON/OFF) setting

(1) In order to set to the manual tracking mode during tape playback, press the “SP/EP(LP)”button on the remote control unit.
- Each press of the button switches the auto tracking ON or OFF.
- When the manual tracking mode is set, the tracking is placed at the center position.

(2) Press “channel +/-” to adjust the tracking manually.

4.1.7 EVR Adjustment

Some of the electrical adjustments require the adjustment performed by the EVR system. The main unit have EEPROMs for storing the EVR adjustment data and user setups.

Notes:

- **In the EVR adjustment mode, the value is varied with the channel buttons (+, –). The adjusted data is stored when the setting mode changes (from PB to STOP, when the tape speed is changed, etc.). Take care to identify the current mode of each adjustment item when making an adjustment.**
- **When changing the address setting in the EVR adjustment mode, use the Jig RCU or the remote controller having numeric keypad with which a numeric code can be directly input.**
  The remote control code of the Jig RCU corresponds to each of the digit keys on the remote controller as follows.

Digit-key	0	1	2	3	4	5	6	7	8	9
Code	20	21	22	23	24	25	26	27	28	29

- **As the counter indication and remaining tape indication are not displayed FDP during the EVR adjustment mode, check them on the TV monitor screen.**
- **When performing the EVR adjustment, confirm that the FDP indication is changed to the EVR mode, as shown below.**

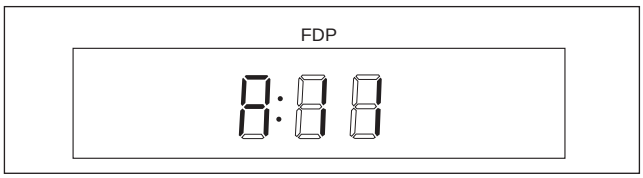


Fig.4-1b EVR mode

4.2 Mechanism compatibility adjustment (VHS SECTION)

Notes:

- **Although compatibility adjustment is very important, it is not necessary to perform this as part of the normal servicing work. It will be required when you have replaced the A/C head, drum assembly or any part of the tape transport system.**
- **To prevent damaging the alignment tape in the compatibility adjustment, prepare a cassette tape (for self-recording/playback), perform a test on it by transporting it and making sure that the tape is not bent by the tape transport mechanisms such as in the guide rollers.(See Fig.4-2b.)**

4.2.1 Tension pole position

Notes:

- **This adjustment must be performed every time the tension band is replaced.**

Signal	(A)	• Back tension cassette gauge [PUJ48076-2]
Mode	(B1) (B2)	• PB • Eject end
Adjustment part	(F)	• Adjust pin [Mechansim assembly]
Specified value	(G)	• 25 - 51 gf•cm (2.45 - 5 x 10^{-3} Nm)

(1) Play back the back tension cassette gauge (A).

(2) Check that the indicated value on the left side gauge is within the specified value (G).

(3) If the indicated value is not within the specified value (G), perform the adjustment in a following procedure.(See Fig.4-2a.)
   a) Remove the top frame, cassette holder and side frames (L/R) all together. (Refer to the SERVICE MANUAL No.86700 [MECHANISM ASSEMBLY].)
   b) Rotate the loading motor gear to move the control plate so that the triangular stamping to the left of the “P”stamping is aligned with the stamping (a) on the main deck. This positioning is mode (B1).
   c) Adjust by turning the adjustment pin so that the tip of the tension arm is aligned with the stamping (b) on the main deck.
   d) Rotate the reel disk (S) by about one turn clockwise and make sure that the round hole of the adjustment pin is located in the “OK” range. If it is outside this range, restart the adjustment from the beginning.

   After completion of the adjustment, rotate the loading gear motor to return it to the mode (B2) position.

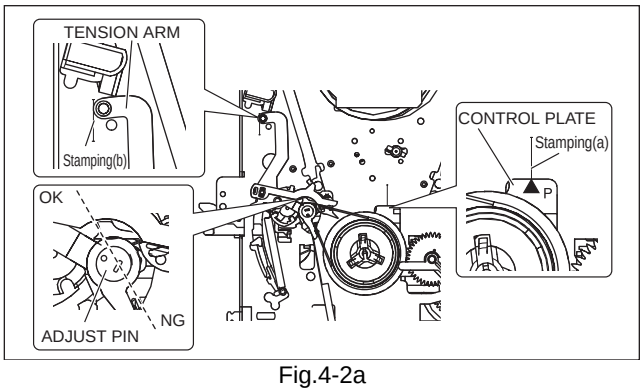


Fig.4-2a

4.2.2 FM waveform linearity

Signal	(A1) (A2)	• Alignment tape(SP, stairstep, NTSC) [MHP] • Alignment tape(EP,stairstep,NTSC) [MHP-L]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP106 (PB. FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• Guide roller [Mechanism assembly]
Specified value	(G)	• Flat V.PB FM waveform
Adjustment tool	(H)	• Roller driver [PTU94002]

(1) Play back the alignment tape (A1).
(2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
(3) Set the VCR to the manual tracking mode.
(4) Make sure that there is no significant level drop of the V.PB FM waveform caused by the tracking operation, with its generally parallel and linear variation ensured. Perform the following adjustments when required. (See Fig. 4-2c.)
(5) Reduce the V.PB FM waveform by the tracking operation.
If a drop in level is found on the left side, turn the guide roller of the pole base assembly (supply side) with the roller driver to make the V.PB FM waveform linear.
If a drop in level is on the right side, likewise turn the guide roller of the pole base assembly (take-up side) with the roller driver to make it linear. (See Fig. 4-2c.)
(6) Make sure that the V.PB FM waveform varies in parallel and linearly with the tracking operation again. When required, perform fine-adjustment of the guide roller of the pole base assembly (supply or take-up side).
(7) Unload the cassette tape once, play back the alignment tape (A1) again and confirm the V.PB FM waveform.
(8) After adjustment, confirm that the tape wrinkling does not occur at the roller upper or lower limits. (See Fig. 4-2b.) [Perform adjustment step (9) only for the models equipped with SP mode and EP (or LP) mode.]

[Perform adjustment step (9) only for the models equipped with SP mode and EP (or LP) mode.]

(9) Repeat steps (1) to (8) by using the alignment tape (A2).

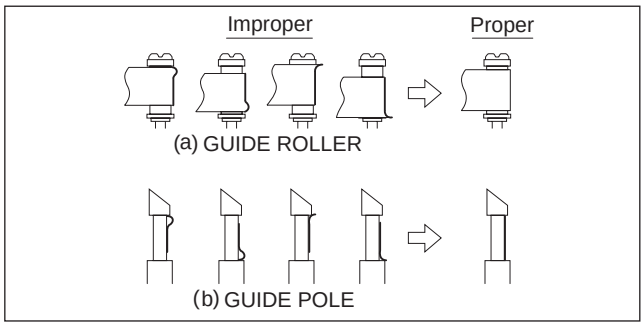


Fig.4-2b

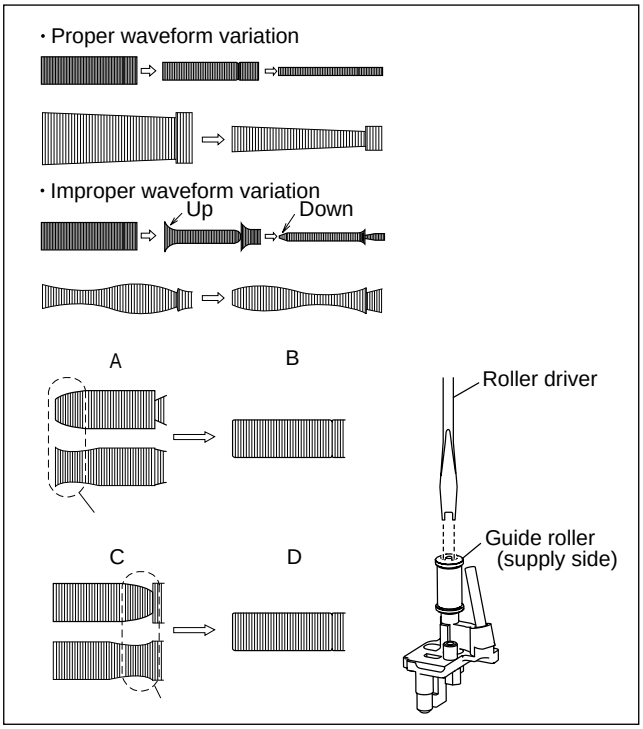


Fig.4-2c

4.2.3 Height and tilt of the A/C head

Note:

- **Set a temporary level of the height of the A/C head in advance to make the adjustment easier after the A/C head has been replaced. (Refer to the SERVICE MANUAL No.86700 [MECHANISM ASSEMBLY].)**

Signal	(A)	• Alignment tape(SP, stairstep, NTSC) [MHP]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• TP106 (PB. FM) • TP4001 (CTL. P)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• A/C head [Mechanism assembly]
Specified value	(G)	• Maximum waveform

(1) Play back the alignment tape (A).
(2) Apply the external trigger signal to D.FF (E), to observe the AUDIO OUT waveform and Control pulse waveform at the measuring points (D1) and (D2) in the ALT mode.
(3) Set the VCR to the manual tracking mode.
(4) Adjust the AUDIO OUT waveform and Control pulse waveform by turning the screws (1), (2) and (3) little by little until both waveforms reach maximum. The screw (1) and (3) are for adjustment of tilt and the screw (2) for azimuth.

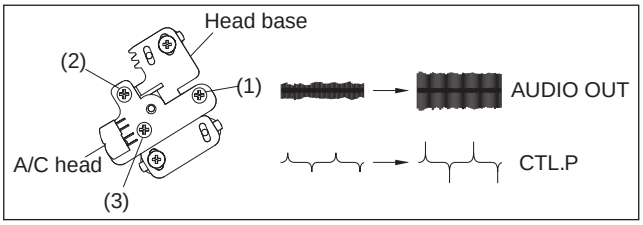


Fig.4-2d

4.2.4 A/C head phase (X-value)

Signal	(A1) (A2)	• Alignment tape(SP, stairstep, NTSC) [MHP] • Alignment tape(EP,stairstep,NTSC) [MHP-L]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP106 (PB. FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• A/C head base [Mechanism assembly]
Specified value	(G)	• Flat V.PB FM waveform
Adjustment tool	(H)	• Roller driver [PTU94002]

(1) Play back the alignment tape (A1).
(2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
(3) Set the VCR to the manual tracking mode.
(4) Loosen the screws (4) and (5), then set the Roller driver to the innermost projected part of the A/C head. (See Fig. 4-2e.)
(5) Rotate the roller driver so that the A/C head comes closest to the capstan. From there, move the A/C head back gradually toward the drum until the point where the FM waveform is maximized for the second time, and then tighten the screws (4) and (5) temporarily.
(6) Play an alignment tape (A2) and set to the manual-tracking mode.
(7) Fine-adjust A/C head base position to maximize the FM waveform, and then tighten the screws (4) and (5) firmly.
(8) Play alignment tapes (A1) and (A2) and confirm that the FM waveforms are maximized when the tracking is at the center position.

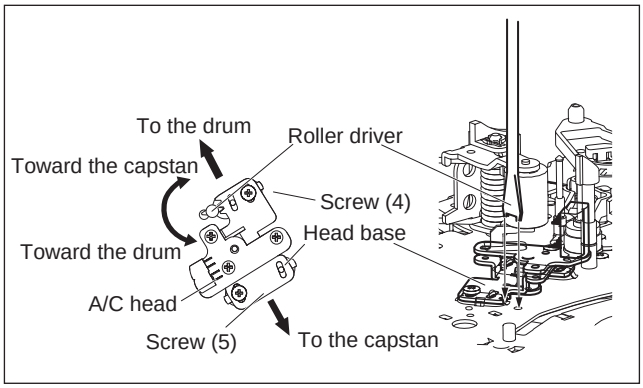


Fig.4-2e

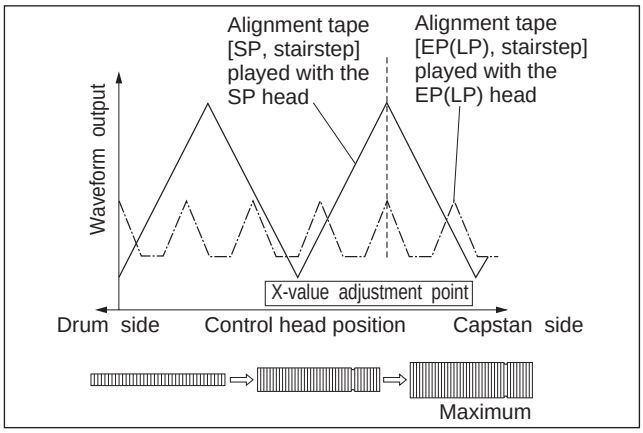


Fig.4-2f

4.3 Electrical adjustment (VHS SECTION)

Note:
The following adjustment procedures are not only necessary after replacement of consumable mechanical parts or board assemblies, but are also provided as references to be referred to when servicing the electrical circuitry.
In case of trouble with the electrical circuitry, always begin a service by identifying the defective points by using the measuring instruments as described in the following electrical adjustment procedures. After this, proceed to the repair, replacement and/or adjustment. If the required measuring instruments are not available in the field, do not change the adjustment parts (variable resistor, etc.) carelessly.

4.3.1 Servo circuit

4.3.1.1 Switching point

Signal	(A1) (A2)	• Stairstep signal • Alignment tape(EP,stairstep,NTSC) [MHP-L]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• VIDEO OUT terminal (75 ohm terminated) • TP106 (PB. FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• Jig RCU: Code “5A”
Specified value	(G)	• 6.5 ± 0.5H (VHS models) • 7.5 ± 0.5H (S-VHS models)
Adjustment tool	(H)	• Jig RCU [PTU94023B]

(1) Play back the signal (A1) of the alignment tape (A2).
(2) Apply the external trigger signal to D.FF (E) to observe the VIDEO OUT waveform and V.PB FM waveform at the measuring points (D1) and (D2).
(3) Set the VCR to the manual tracking mode.
(4) Adjust tracking so that the V.PB FM waveform becomes maximum.
(5) Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed.
(6) If the VCR enters the eject mode, repeat steps (1) to (5) again.
(7) Play back the alignment tape (A2) again, confirm that the switching point is the specified value (G).

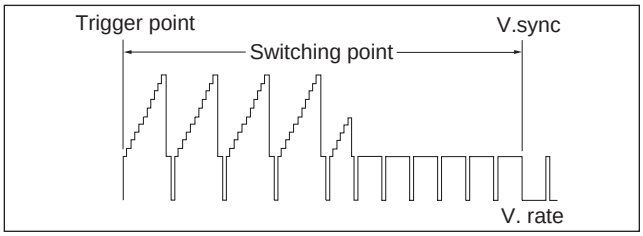


Fig.4-3a Switching point

4.3.1.2 Slow tracking preset

Signal	(A1) (A2)	• Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	• VHS SP • VHS EP
Measuring point	(D)	• TV-Monitor
Adjustment part	(F)	• Jig RCU: Code “71”or “72”
Specified value	(G)	• minimum noise
Adjustment tool	(H)	• Jig RCU [PTU94023B]

(1) Record the signal (A2) in the mode (B1), and play back the recorded signal.
(2) Set the VCR to the manual tracking mode.
(3) Set the VCR to the FWD slow (+1/6x) mode.

(4) Transmit the code (F) from the Jig RCU to adjust so that the noise bar becomes the specified value (G) on the TV monitor in the slow mode.
(5) Set the VCR to the Stop mode.
(6) Confirm that the noise bar is (G) on the TV monitor in the slow mode.
(7) Repeat steps (3) to (6) in the REV slow (+1/6x) mode.
(8) Repeat steps (1) to (7) in the mode (B2).

Note:

- **For FWD slow (+1/6x) playback, transmit the code "08" from the Jig RCU to enter the slow playback mode, and transmit the code "D0"for REV slow (-1/6x) mode.**

4.3.2 Video circuit

4.3.2.1 EE Y/PB Y (S-VHS) level

Signal	(A1)	• Ext. S-input
	(A2)	• Ext. input
	(A3)	• Color (colour) bar signal [NTSC]
Mode	(B1)	• EE SP
	(B2)	• S-VHS SP
	(B3)	• VHS SP
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• Y OUT terminal (75 ohm terminated)
EVR mode	(F1)	• Jig code "57"
EVR address	(F2)	• A : 11
	(F3)	• Jig code "21" twice
	(F4)	• Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• 1.00 ± 0.05 Vp-p
Adjustment tool	(H)	• Jig RCU [PTU94023B]

(1) Input the signal (A3) from the input point (A1).
(2) Set the VCR to the mode (B1).
(3) Observe the Y OUT waveform at the measuring point (D).
(4) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
(5) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
(6) Transmit the code (F4) from the Jig RCU to adjust so that the Y level of the Y OUT waveform becomes the specified value (G).
(7) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
(8) Input the signal (A3) from the input point (A2).
(9) Repeat steps (3) to (7) in the mode (B1).
(10) Record the signal (A3) in the mode (B2), and play back the recorded signal.
(11) Set the VCR to the manual tracking mode.
(12) Repeat steps (3) to (7) in the mode (B2).
(13) Record the signal (A3) in the mode (B3), and play back the recorded signal.
(14) Set the VCR to the manual tracking mode.
(15) Repeat steps (3) to (7) in the mode (B3).

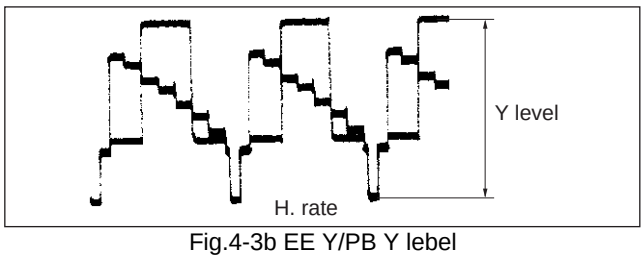


Fig.4-3b EE Y/PB Y lebel

4.3.3 Syscon circuit [UM MODEL]

Notes:

- **When perform this adjustment, remove the Mechanism assembly.**

4.3.3.1 Timer clock

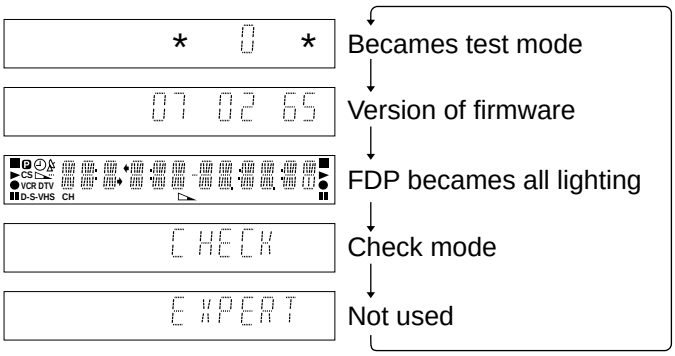
Signal	(A1)	• No signal
Mode	(B)	• EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC3001 pin 44
	(D2)	• IC3001 pin 103
	(D3)	• C3054 + and -
Adjustment part	(F)	• C3025 (TIMER CLOCK)
Specified value	(G1)	• 1024.008 ± 0.001 Hz (976.5549 ± 0.0010 usec)

(1) Connect the frequency counter to the measuring point (D1).
(2) Connect the short wire between the short point (D2) and Vcc (5V).
(3) Short the leads of capacitor (D3) once in order to reset the microprocessor of the Syscon.
(4) Disconnect the short wire between the short point (D2) and Vcc then connect it again.
(5) Adjust the Adjustment part (F) so that the output frequency becomes the specified value (G).

4.4 Electrical adjustment (DVD SECTION)

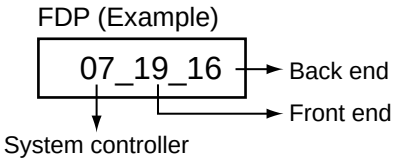
4.4.1 Test mode setting method

(1) Press POWER button then press VCR/DVD repeatedly so that the DVD indicatorlights up.
(2) Press the POWER button again to set the stand-by mode.
(3) Transmit the code "FA" from the Jig RCU.
(4) The FDP shows the test mode content in the form of "∗ 0 ∗".
(5) To release test mode, press "POWER" key of the front panel.
(6) Each pressing of "SET UP MENU" key of the remote controller in test mode changes the mode as follows.



4.4.2 Method of displaying version of firmware

(1) Set the main body at test mode.
(2) Press "SET UP MENU" key of the remote controller once. Then, version number and alphabetical letter of the system controller and the back end are displayed in the FL display as follows:



4.4.3 Initialization method

Please initialize according to the following procedures in the following case:

- Just after you upgrade the firmware.
- After you confirm the symptoms that a customer points out. First Initialize, and then confirm whether the symptoms are improved or not.
- After servicing, before returning the main body to a customer. (Initialized main body should be returned to a customer.)
  (1) Set the main body at test mode.
  (2) Press "PAUSE" key of the front panel or transmit the code "6F" from the Jig RCU.
  (3) When initialization is completed, the FDP changes from "∗0" to "∗00".(The left "0" of "00" is not always "0". It shows parameter adjustment status.)

4.4.4 All-initialization method

Please perform all-initialization according to the following procedures in the following case:

- Just after you exchange the pick-up.
- Just after you exchange the spindle motor.
- Just after you exchange the traverse mechanism base.

NOTE:
Please perform all-initialization when you exchange the parts above and also when you remove the parts above.

- Just after the flap adjustment of the pick-up guide shaft
  (1) Set the main body at test mode.
  (2) Press the "REVERSE SKIP/INDEX (⏮)" key of the remote controller for more than 2 seconds.
  (3) When all-initialization is completed, the FDP changes from "∗0" to "∗33".

NOTE:
After all-initialization, be sure to perform optimization adjustment of Front End parameter.

4.4.5 Optimization adjustment of Front End parameter

Adjustment to optimize Front End parameter must be performed in each mechanism assembly of this model for high-speed starting.Please perform optimization according to the following procedures just after all-initialization is completed and when FL display shows anything except "∗0" (For example when FDP shows "∗1", "∗2", and "∗3") at test mode.

(1) Press "POWER" button of the front panel to turn the main body on (not to set the main body at test mode).
(2) Insert the test disc VT-501 or commercial dual-layer DVD software.
(3) Remove the disc when the FL display changes from "READ" to disc information.
(4) Perform the same procedures as in (2) and (3) above by using the test disc CTS-1000 or commercial CD-DA software.
(5) Set the main body at test mode, and check that the FDP shows "∗0".

NOTE:

Status of this adjustment can be judged by the number displayed at test mode as follows:

DVD adjustment	CD adjustment	FDP at test mode
Adjusted	Adjusted	∗0
Not adjusted	Adjusted	∗1
Adjusted	Not adjusted	∗2
Not adjusted	Not adjusted	∗3

NOTE:

As for a disc used for adjustment,

- Disc should be mounted. ("Mounting" means to display "READ" after the disc is inserted and then display the disc information.) Disc need not be played.
- If you do not have test disc either VT-501 (DVD) or CTS-1000 (CD-DA), use a commercial disc (for DVD, dual-layer software) after seeing and checking that the disc is neither curved nor foreseen that it may shake at the time of playback.If you use a disc with bad features, starting time may be slow or disc may not be read.

4.4.6 Display of current value of laser

(1) Set the main body at test mode.
(2) Press "SET UP MENU" key of the remote controller three times. Then, FDP is displayed "CHECK".
(3) The laser current value can be switched between the value of CD and that of DVD by pressing the following key of the remote controller.

FDP (Example)

2530 ****

Remote controller "4" key --- Laser of CD
Remote controller "5" key --- Laser of DVD

The number shown in the FDP shows mA of current value of laser.The first two numbers ("25" in "2530") shows current value of laser at the time of adjustment after the latest all-initialization, 25mA in this example.The last two numbers ("30" in "2530") shows the present current value of laser, 30mA in this example.The first two numbers ("25" in "2530") usually shows current value of laser at the time of shipment, so you can see how the product has been deteriorated by comparing the first two numbers ("25" in "2530") and the last two numbers ("30" in "2530").

CD:

The laser current value of 65 mA or less is normal.The laser current value of over 66 mA is not normal. Laser diode of the pickup has been deteriorated.

DVD:

The laser current value of 80 mA or less is normal.The laser current value of over 81 mA is not normal. Laser diode of the pickup has been deteriorated.

To return to test mode, press "STOP" button of the front panel.

4.4.7 Flap adjustment of the pick-up guide shaft

Please perform flap adjustment of the pick-up guide shaft in the following case:

- Just after you exchange the pick-up.
- Just after you exchange the spindle motor.
- Just after you exchange the traverse mechanism base.

NOTE:

Please perform flap adjustment of the pick-up guide shaft when you exchange the parts above and also when you remove the parts above.

- When the reading accuracy of the signal is bad (There is a block noise in the screen, Screen stops in the outer circumference of a disc, etc.)

4.4.7.1 Tool for adjustment

* The screwdriver

good on the market

* Test disc

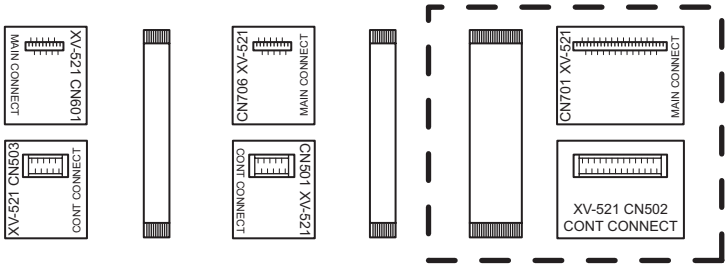
part number : VT-501

*Stud

part number : JIGXVS40 (Note: One of the four studs is not used here.)

* Extension cord

part number : EXTXV521CB



Used two set of this part.

4.4.7.2 Preparation for adjustment

(1) Remove the DVD unit.(Refer to the SECTION 3 Removing the major parts)
(2) Connect a extention cord between CN502 of DVD servo control board assembly and CN7301 of Main board assembly. (See Fig.4-4a)
(3) Connect a extention cord between CN501 of DVD servo control board assembly and CN5302 of Regulator board assembly. (See Fig.4-4a)
(4) Remove the DVD servo control board assembly attached the DVD unit.
(5) Three stud is attached in a DVD unit. (See Fig.4-4b)

NOTE:
The connector of an extended code (right or reverse) since direction of which is also connectable, be careful of the direction which a relay wire inserts enough It will become the cause of failure if especially a Regulator board side is mistaken.

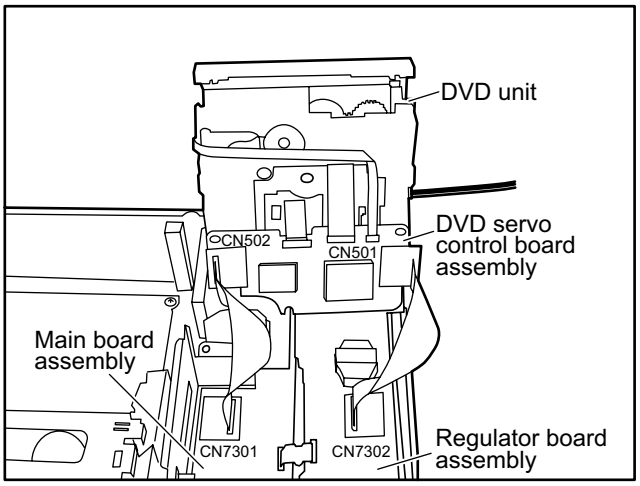


Fig.4-4a

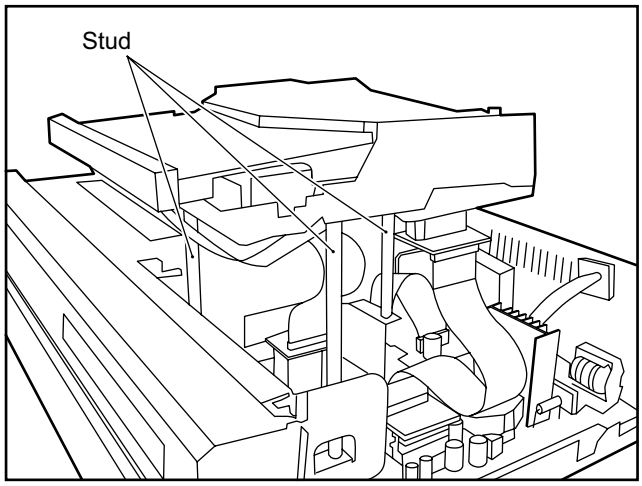


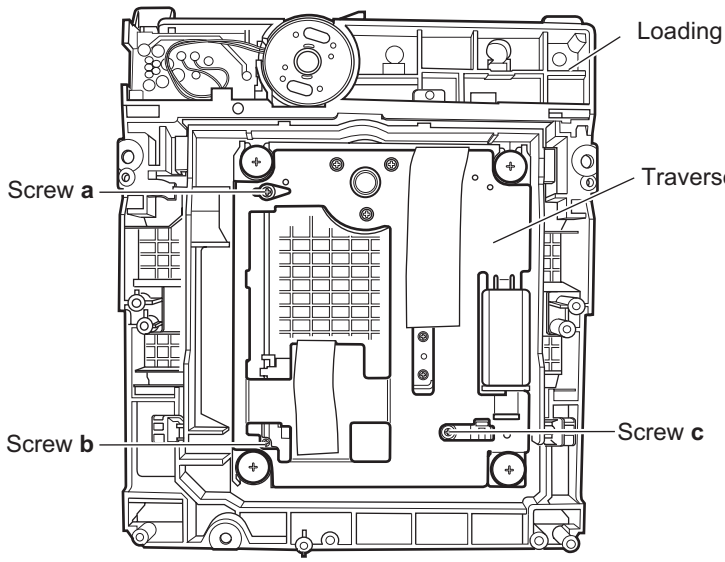
Fig.4-4b

4.4.7.3 Adjustment

(1) Set the main body at test mode.
(2) Press the "SET UP MENU" key of the remote controller three times, and the FDP is displayed "CHECK".
(3) Insert a test disc (VT-501), and press the "PLAY" button of the front panel.
(4) After a few seconds, press the numeric key "6" of the remote controller. Then, the FDP is displays a jitter value.
(5) Turn the adjustment screws on the underside of the traverse mechanism with screw driver until the maximum jitter value is displayed on the FDP. (In this model, a bigger jitter value means a better result.)

NOTE:

- Reference values to judge whether the jitter is allowable or not are displayed, instead of actual jitter values.
- Please be sure to perform "all-initialization" and "optimization adjustment of front end parameter" after adjusting.



POINT:
Turn the adjustment screws **a** and **b** to the same angle in the right direction. And turn the adjustment screws **a** and **b** to the same angle in the left direction. Then, turn the screws **a** and **b** in either the right or the left direction to increase the number of jitter.
Don't turn the adjustment screw **c**.

FDP (Example)

1241 ****	Remote controller "6" key-Jitter value

SECTION 5
TROUBLESHOOTING

5.1 Manually removing the cassette tape

If you cannot remove the cassette tape which is loaded because of any electrical or mechanical failures, manually remove it by taking the following steps.

(1) Unplug the power cord plug from the power outlet.

(2) Refer to the disassembly procedure of the VCR and perform the disassembly of the major parts before removing the mechanism assembly. (See Fig. 5-1a)

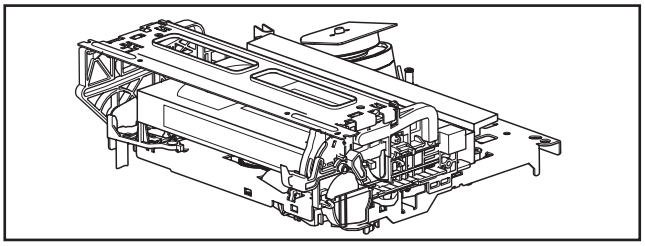


Fig.5-1a

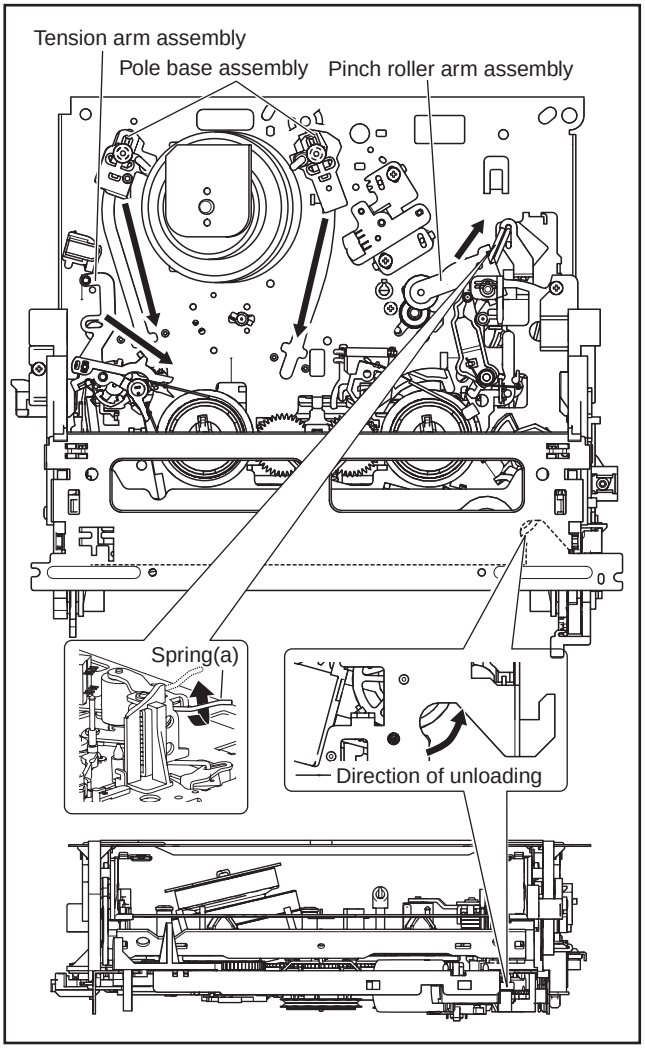


Fig.5-1b

(3) Unload the pole base assembly by manually turning the gear of the loading motor until the pole base assembly is hidden behind the cassette lid. In doing so, hold the tape by the hand to keep the slack away from any grease. (See Fig.5-1b)

In case of mechanical failures, while keeping the tension arm assembly free from tension, pull out the tape on the pole base assembly. Take the spring(a) of the pinch roller arm assembly off the hook, and detach it from the tape.

(4) Remove the screw (a) of the side frame (L/R).

(5) Hold the slack tape and cassette cover together, lift the cassette tape, top frame, cassette holder and side frames (L, R) together from the rear and remove them by dis-engaging the hooks (a) and (b).

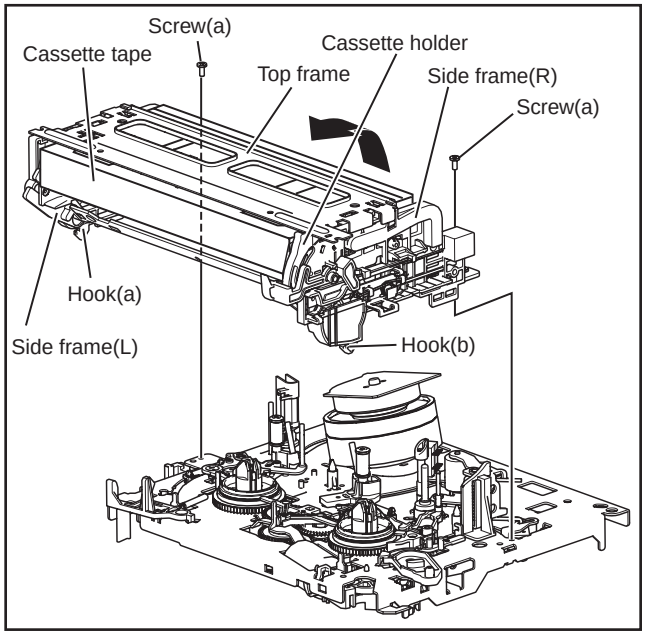


Fig.5-1c

(6) Take up the slack of the tape into the cassette. This completes removal of the cassette tape.

5.2 Manually removing the disk(DVD/CD)

If you cannot remove the disk which is loaded because of any electrical or mechanical failures, manually remove it by taking the following steps.

(1) Unplug the power cord plug from the power outlet.

(2) Remove the top cover and front panel assembly.
(Refer to the disassembly procedure and perform the disassembly of the major parts before removing)

(3) Turn the Middle gear (a) by hand to open the disk tray.(See Fig. 5-2a)

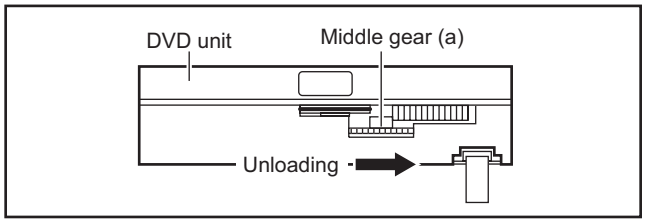


Fig.5-2a

5.3 Emergency display function (VHS SECTION)

This unit saves details of the last two emergencies as the EMG history and allows the status of the VCR and the mechanism of each emergency to be shown both on the display and as OSD information.
When using the emergency function, it is required to set the VCR to the Jig RCU mode.

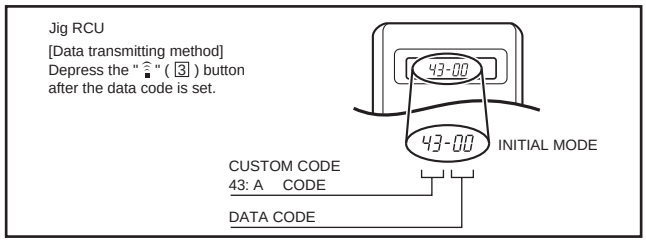


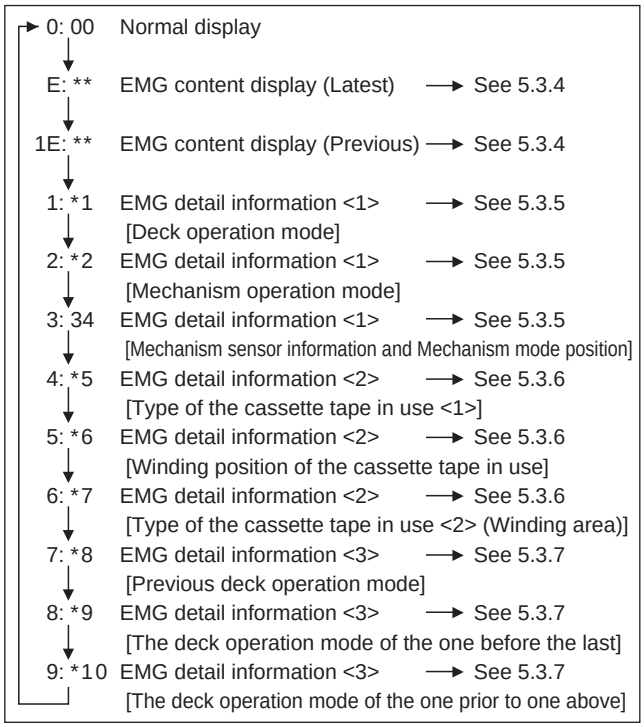
Fig.5-3a Jig RCU [PTU94023B]

5.3.1 Displaying the EMG information

The EMG detail of information can be displayed by transmitting the code "59" from the Jig RCU.

Note:

- **The EMG detail information <1><2> show the information on the latest EMG.**
  It becomes " – – : – – : – –" when there is no latest EMG record.


0: 00 Normal display
E: ** EMG content display (Latest) → See 5.3.4
1E: ** EMG content display (Previous) → See 5.3.4
1: *1 EMG detail information <1> → See 5.3.5
[Deck operation mode]
2: *2 EMG detail information <1> → See 5.3.5
[Mechanism operation mode]
3: 34 EMG detail information <1> → See 5.3.5
[Mechanism sensor information and Mechanism mode position]
4: *5 EMG detail information <2> → See 5.3.6
[Type of the cassette tape in use <1>]
5: *6 EMG detail information <2> → See 5.3.6
[Winding position of the cassette tape in use]
6: *7 EMG detail information <2> → See 5.3.6
[Type of the cassette tape in use <2> (Winding area)]
7: *8 EMG detail information <3> → See 5.3.7
[Previous deck operation mode]
8: *9 EMG detail information <3> → See 5.3.7
[The deck operation mode of the one before the last]
9: *10 EMG detail information <3> → See 5.3.7
[The deck operation mode of the one prior to one above]

EMG display of 7 FDP display model
Fig.5-3b

EMG display of FDP display mode

(1) Transmit the code "59" from the Jig RCU.
The FDP shows the EMG content in the form of "E:**:**".

<Example 1> E : 01 ← Latest EMG

<Example 2> E : - - ← No EMG record

(2) Transmit the code "59" from the Jig RCU again.
The FDP shows the EMG detail information <1> in the form of " *1: *2 : 34 ".

*1 : Deck operation mode at the moment of EMG
*2 : Mechanism operation mode at the moment of EMG
3- : Mechanism sensor information at the moment of EMG
-4 : Mechanism mode position at the moment of EMG

(3) Transmit the code "59" from the Jig RCU once again.
The FDP shows the EMG detail information <2> in the form of " *5 : *6 : *7 ".

*5 : Type of the cassette tape in use <1> .
*6 : Winding position of the cassette tape in use
*7 : Type of the cassette tape in use <2> (Winding area)

(4) Transmit the code "59" from the Jig RCU once again.
The FDP shows the EMG detail information <3> in the form of "*8 : *9 : *10".

*8 : Previous deck operation mode at the moment of EMG
*9 : The deck operation mode of the one before the last at the moment of EMG
*10: The deck operation mode of the one prior to one above at the moment of EMG

(5) Transmit the code "59" from the Jig RCU once again to reset the display.

5.3.2 Clearing the EMG history

(1) Display the EMG history.
(2) Transmit the code “36” from the Jig RCU.
(3) Reset the EMG display.

5.3.3 Details of the OSD display in the EMG display mode

During the EMG display, the OSD shows the data on the deck mode, etc. The details of the display contents are as follows.

Notes:

- **The display is variable depending on the part No. of the System Control microcomputer (IC3001) built into the VCR. In the following, refer to the figure carrying the same two characters as the top two characters of the part number of your IC.**
- **The sensor information in the OSD display contents is partially different from the mechanism sensor information in EMG detail information <1>.**

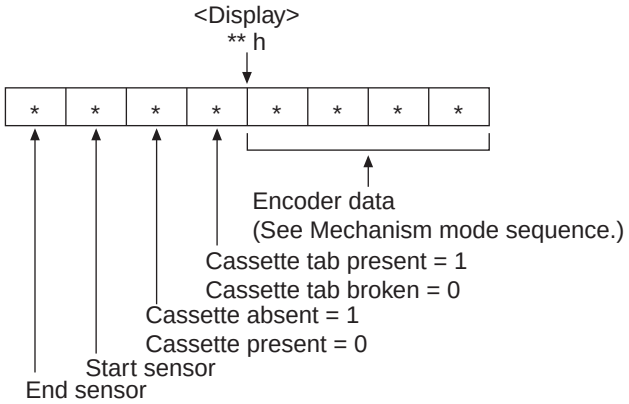
[For MN* only]

AA	BB	CC	DD	EE
FF	GG	HH	I I	J J
KK	L L	MM	NN	OO
PP	QQ	RR	SS	TT
UU	VV	WW	XX	YY

AA : Deck operation mode (See EMG detail information <1>.)
BB : Mechanism operation mode (See EMG detail of information <1>.)
CC : Mechanism transition flag
DD : Capstan motor control status
EE : Loading motor control status
FF : Sensor information (See sensor information details.)
GG : Capstan motor speed
HH : Key code (JVC code)
I I : Supply reel winding diameter data higher 8 bits.
JJ : Supply reel winding diameter data lower 8 bits.
KK : Mechanism sensor information & mechanism mode position(See EMG detail of information <1>.)
LL : Tape speed data higher 8 bits.
MM : Tape speed data lower 8 bits.
NN : Cassette tape type <2> higher 8 bits. (See EMG detail of information <2>.)
OO : Cassette tape type <2> lower 8 bits. (See EMG detail of information <2>.)
PP : General data display area

YY : General data display area

***FF:Sensor information details**

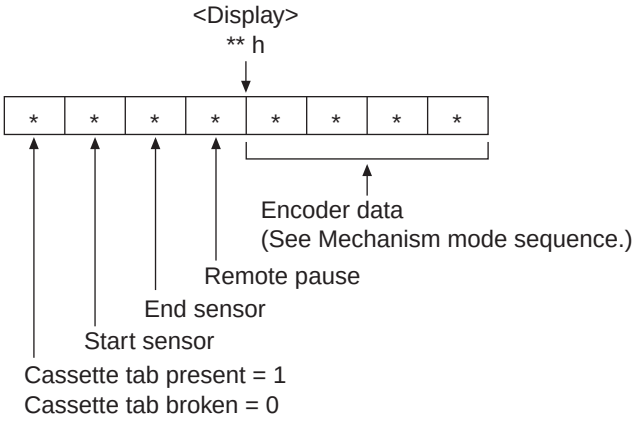


[For *HD only]

AA	BB	CC
DD	EE	FF
GGGG	HHHH	
I I	J J J J	
KKKK	L L L L	MMMM
ROM No.		

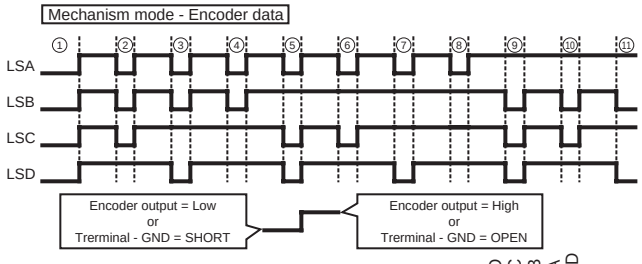
AA : Key code (JVC code)
BB : Deck operation mode(See EMG detail information <1>.)
CC : Mechanism operation mode (See EMG detail information <1>.)
DD : Sensor information (See sensor information details.)
EE : Capstan motor speed (Search, double speed)
FF : Tracking value
GGGG : Cassette tape type <2>, 16 bits. (See EMG detail information <2>.)
HHHH : Supply reel winding diameter data
I I : Capstan motor speed (FF/REW, double speed)
JJJJ : Tape speed data, lower 8 bits.
KKKK : General data display area
LLLL : General data display area
MMMM : General data display area

***DD:Sensor information details**

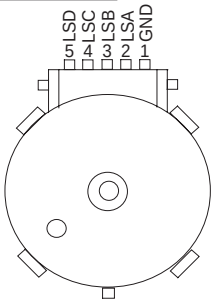


[For both MN*/HD*]

Mechanism mode sequence



No.	Position	Encoder data
①	EJECT	0 h = 0000
②	EJECT1	1 h = 0001
③	EJECT2	2 h = 0010
④	ULSTOP	3 h = 0011
⑤	UPPER	4 h = 0100
⑥	ONSTOP(PLAY)	5 h = 0101
⑦	FWD/SS	6 h = 0110
⑧	REV/SS	7 h = 0111
⑨	OFFSTOP	8 h = 1000
⑩	FFREW-BRAKE	9 h = 1001
⑪	FFREW	A h = 1010
⑫	MIDDLE	F h = 1111



5.3.4 EMG content description

Note:

EMG contents “E08/E09” are for the model with Dynamic Drum (DD).

FDP	CONTENT	CAUSE
E01: Loading EMG	If the mechanism mode does not change to the next mode within 4 seconds after the loading motor starts rotating in the loading direction, while the mechanism is in the after-loading position (with the tape up against the pole base), [E:01] is identified and the power is switched OFF. However, if the tape loading is not completed within 4 seconds after the loading motor starts rotating in the loading direction, the tape is simply unloaded and ejected. No EMG data is recorded in this case.	1. The mechanism is locked in the middle of the mode transition during a tape loading operation. 2. The mechanism overruns during the tape loading operation because the SYSCON cannot recognize the mechanism mode normally. This problem is due to a cause such as a rotary encoder failure. 3. Power is not supplied to the loading MDA. (M12V/Vcc/Vref/ICP are disconnected in the middle.)
E02: Unloading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the unloading direction, [E:02] is identified and the power is turned off.	1. The mechanism is locked in the middle of mode transition. 2. Without an eject signal being sent from the SYSCON, unloading is attempted (i.e. Ejection is attempted while the tape is still inside the mechanism.) because the SYSCON cannot recognize the mechanism mode normally. This is due to a cause such as a rotary encoder failure. (Mechanism position: UPPER) 3. Power is not supplied to the loading MDA. (M12V/Vcc/Vref/ICP are disconnected in the middle.)
E03: Take Up Reel Pulse EMG	When the falling edje of the take-up reel pulse has not been generated for more than 4 seconds in the capstan rotating mode, [E:03] is identified, the pinch rollers are turned off and stopped, and the power is turned off. In this case, however, the mechanism should be in position after tape loading. Note that the reel EMG is not detected during Slow/Frame advance operations.	1. The take-up reel pulse is not generated in the FWD transport modes (PLAY/FWD SEARCH/FF, etc.) because; 1) The idler gear is not meshed with the take-up reel gear because the mechanism mal-functions for some reason. 2) The idler gear is meshed with the take-up reel gear, but incapable of winding due to too large mechanical load (abnormal tension); 3) The reel is rotating normally but an FG pulse is not generated due to the take-up reel sensor failure. 2. The supply reel pulse is not generated in the REV transport modes (REV SEARCH/REW, etc.) because; 1) The idler gear is not meshed with the supply reel gear because the mechanism mal-functions for some reason. 2) The idler gear is meshed with the supply reel gear, but incapable of winding due to too large a mechanical load (abnormal tension); 3) The reel rotates normally but the FG pulse is not generated due to a supply reel sensor failure. 3. Power(SW5V) is not supplied to the reel sensor on the tape winding side.
E04: Drum FG EMG	When the drum FG pulse has not been input for more than 3 seconds in the drum rotating mode, [E:04] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	1. The drum could not start or the drum rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high; 2) The tape is damaged or a foreign object (grease, etc.) adheres to the tape. 2. The drum FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (hall device) of the drum is faulty. 3. The drum control voltage (DRUM CTL V) is not supplied to the MDA. 4. Power (M12V) is not supplied to the drum MDA.
E05: Cassette Eject EMG	If the cassette does not reach the eject position within about 0.7 seconds after the cassette housing has started the cassette ejection operation, [E:05] is identified, the drive direction is reversed to load the tape, the mode is switched to STOP mode with the pinch roller OFF, and the power is switched OFF. During the cassette insertion process, the drive direction is reversed and the cassette is ejected if the tape is not up against the pole base within about 3 seconds after the start of the cassette pulling-in operation. If the cassette does not reach the eject position within about 0.7 seconds after the drive mode reversal operation, [E:05] is identified and the power is switched OFF immediately.	1. The cassette cannot be ejected due to a failure in the drive mechanism of the housing. 2. When the housing load increases during ejection, the loading motor is stopped because of lack of headroom in its drive torque. Housing load increasing factors: Temperature environment (low temperature, etc.), mechanism wear or failure. 3. The sensor/switch for detecting the end of ejection are not functioning normally. 4. The loading motor drive voltage is lower than specified or power (M12V) is not supplied to the motor (MDA). 5. When the user attempted to eject a cassette, a foreign object (or perhaps the user's hand) was caught in the opening of the housing.
E06: Capstan FG EMG	When the capstan FG pulse has not been generated for more than 1 second in the capstan rotating mode, [E:06] is identified, the pinch rollers are turned off and stopped, and the power is turned off.However, the capstan EMG is not detected in SLOW/STILL modes. Note that, if the part number of the System Control IC begins with "MN" or "M3", the capstan EMG is not detected even during the FF/REW operation.	1. The capstan could not start or the capstan rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high (mechanical lock); 2) The tape is damaged or a foreign object (grease, etc.) is adhered to the tape (occurrence of tape entangling, etc.). 2. The capstan FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (MR device) of the capstans is faulty. 3. The capstan control voltage (CAPSTAN CTL V) is not supplied to the MDA. 4. Power (M12V, SW5V) are not supplied to the capstan MDA.
E07: SW Power Short-Circuit EMG	When short-circuiting of the SW power supply with GND has lasted for 0.5 second or more, [E:07] is identified, all the motors are stopped and the power is turned off.	1. The SW 5 V power supply circuit is shorted with GND. 2. The SW 12 V power supply circuit is shorted with GND.
E08: DD Initialized (Absolute Position Sensor) EMG	When DD tilting does not complete in 4 seconds, [E:08] is identified, the tilt motor is stopped and the power is turned off.	1. The absolute value sensor is defective. (The soldered parts have separated.) 2. The pull-up resistor at the absolute sensor output is defective. (The soldered parts have separated.) 3. Contact failure or soldering failure of the pins of the connector (board-to-board) to the absolute value sensor. 4. The absolute value sensor data is not sent to the System Controller CPU.
E09: DD FG EMG	When the DD FG pulse is not generated within 2.5 seconds, [E:09] is identified, the tilt motor is stopped and the power is turned off.	1. The FG sensor is defective. (The soldered parts have separated.) 2. The pull-up resistor at the FG sensor output is defective. (The soldered parts have separated.) 3. Contact failure or soldering failure of the pins of the connector (board-to-board) to the FG sensor. 4. The power (5V) to the sensor is not supplied. (Connection failure/soldering failure) 5. The FG pulse is not sent to the System Controller CPU. 6. The tilt motor is defective. (The soldered parts have separated.) 7. The drive power to the tilt motor is not supplied. (Connection failure/soldering failure) 8. The tilt motor drive MDA - IC is defective. 9. Auto-recovery of the DD tilting cannot take place due to overrun.
E0A: Supply Reel Pulse EMG	When the falling edge of the supply reel pulse has not been generated for more than 10 seconds in the capstan rotating mode, [E:0A] is identified and the cassette is ejected (but the power is not turned off). In this case, however, the mechanism should be in the position after tape loading (with the tape up against the pole base). Also note that the reel EMG is not detected during Slow/Frame advance operations.	1. The supply reel pulse is not generated in the FWD transport mode (PLAY/FWD SEARCH/FF, etc.) because; 1) PLAY/FWD or SEARCH/FF is started while the tape in the inserted cassette is cut in the middle; 2) A mechanical factor caused tape slack inside and outside the supply reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the FWD transport, so the pulse is not generated until then; 3) The reel is rotating normally but the FG pulse is not generated due to a supply reel sensor failure. 2. The take-up reel pulse is not generated in the REV transport mode (REV SEARCH/REW, etc.). 1) REV SEARCH/REW is started when the tape in the inserted cassette has been cut in the middle; 2) A mechanical factor caused tape slack inside and outside the take-up reel side of the cassette shell. In this case, the take up will not rotate until the tape slack is removed by the REV transport, so the pulse will not be generated until that time; 3) The reel is rotating normally but the FG pulse is not generated due to a take-up reel sensor failure. 3. The power (SW 5V) to a reel sensor is not supplied.
EU1: Head clog warning history	Presupposing the presence of the control pulse output in the PLAY mode, when the value obtained by mixing the two V.FM output channels (without regard to the A.FM output) has remained below a certain threshold level for more than 10 seconds, [E:U1] is identified and recorded in the emergency history. During the period in which the head clog is detected, the FDP shows "U:01" and the OSD repeats the "3 seconds of warning display" and the "7 seconds of noise picture display" alternately. EMG code : "E:C1" or "E:U1" / FDP : "U:01" / OSD : "Try cleaning tape." or "Use cleaning cassette." The head clog warning is reset when the above-mentioned threshold has been exceeded for more than 2 seconds or the mode is changed to another mode than PLAY.	

5.3.5 EMG detail information <1>

The status (electrical operation mode) of the VCR and the status (mechanism operation mode/sensor information) of the mechanism in the latest EMG can be confirmed based on the figure in EMG detail information <1> .

[FDP/OSD display] *1 : *2 : 34

*1 : Deck operation mode at the moment of EMG
*2 : Mechanism operation mode at the moment of EMG
3- : Mechanism sensor information at the moment of EMG
-4 : Mechanism mode position at the moment of EMG

Note:

- **For EMG detailed information <1>, the content of the code that is shown on the display (or OSD) differs depending on the parts number of the system control microprocessor (IC3001) of the VCR. The system control microprocessor parts number starts with two letters, refer these to the corresponding table.**

***1 : Deck operation mode**

[Common table of MN* and HD]

Display		Deck operation mode
MN*	HD*	
00	-	Mechanism being initialized
01	00	STOP with pinch roller pressure off (or tape present with P.OFF)
02	01	STOP with pinch roller pressure on
03	-	POWER OFF as a result of EMG
04	04	PLAY (Normal playback)
0C	0E	REC
10	11	Cassette ejected
20	22	FF
21	-	Tape fully loaded, START sensor ON, short FF
22	-	Cassette identification FWD SEARCH before transition to FF (SPx7-speed)
24	26	FWD SEARCH (variable speed) including x2-speed
2C	2E	INSERT REC
40	43	REW
42	-	Cassette identification REV SEARCH before transition to REW (SPx7-speed)
44	47	REV SEARCH (variable speed)
4C	4C	AUDIO DUB
6C	6E	INSERT REC (VIDEO + AUDIO)
84	84	FWD STILL / SLOW
85	85	REV STILL / SLOW
8C	8F	REC PAUSE
8D	-	Back spacing
8E	-	Forward spacing (FWD transport mode with BEST function)
AC	AF	INSERT REC PAUSE
AD	-	INSERT REC back spacing
CC	CD	AUDIO DUB PAUSE
CD	-	AUDIO DUB back spacing
EC	EF	INSERT REC (VIDEO + AUDIO) PAUSE
ED	-	INSERT REC (VIDEO + AUDIO) back spacing

***2 : Mechanism operation mode**

[Table of MN*]

Display	Mechanism operation mode
00	Command standby (No command to be executed)
01	Immediate Power OFF after EMG occurrence
02	Loading from an intermediate position during mechanism initialization
03	Unloading due to EMG occurrence during mechanism initialization
04	Ejecting cassette (ULSTOP to EJECT)
05	Inserting cassette (EJECT to ULSTOP)
06	Loading tape (ULSTOP to PLAY)
07	Unloading tape (PLAY to ULSTOP)
08	Transition from pinch roller ON to STOP
09	Transition from pinch roller OFF to STOP (PLAY to OFFSTOP)
0A	Transition from pinch roller OFF to STOP at power OFF
0B	Transition from pinch roller ON to STOP at power ON
0C	Transition to PLAY
0D	Transition to Search FF
0E	Transition to REC
0F	Transition to FWD STILL/SLOW
10	Transition to REV STILL/SLOW
11	Transition to Search REV
12	Transition from FF/REW to STOP
13	Transition to FF
14	Transition to REW
15	Tape end detection processing during loading
16	Short FWD/REV at tape sensor ON during unloading
17	Transition to FF/REW brake mode

[Table of HD*]

Display	Mechanism operation mode
00	STOP with pinch roller pressure off
01	STOP with pinch roller pressure on
02	U/L STOP (or tape being loaded)
04	PLAY (Normal playback)
05	PLAY (x1-speed playback using JOG)
0E	REC
11	Cassette ejected
22	FF
26	FWD SEARCH (variable speed) including x2-speed
2E	INSERT REC
43	REW
47	REV SEARCH
4C	AUDIO DUB
6E	INSERT REC (VIDEO + AUDIO)
84	FWD STILL/SLOW
85	REV STILL/SLOW
8F	REC PAUSE
AF	INSERT REC PAUSE
C7	REV SEARCH (x1-speed reverse playback using JOG)
CD	AUDIO DUB PAUSE
EF	INSERT REC (VIDEO + AUDIO) PAUSE
F0	Mechanism being initialized
F1	POWER OFF as a result of EMG
F2	Cassette being inserted
F3	Cassette being ejected
F4	Transition from STOP with pinch roller pressure on to STOP with pinch roller pressure off
F5	Transition from STOP with pinch roller pressure on to PLAY
F6	Transition from STOP with pinch roller pressure on to REC
F7	Cassette type detection SEARCH before FF/REW is being executed
F8	Tape being unloaded
F9	Transition from STOP with pinch roller pressure off to STOP with pinch roller pressure on
FA	Transition from STOP with pinch roller pressure off to FF/REW
FB	Transition from STOP with pinch roller pressure off to REC.P (T.REC,etc.)
FC	Transition from STOP with pinch roller pressure off to cassette type detection SEARCH
FD	Short REV being executed after END sensor on during unloading
FE	Tension loosening being executed after tape loading (STOP with pinch roller pressure on)
FF	Tape being unloaded

3- : Mechanism sensor information

[Common table of MN* and HD*]

Display	Mechanism sensor informatio n			
	REC safety SW	Start sensor	End sensor	Mechansim position sensor
0-	Tab broken	ON	ON	ON
1-	Tab broken	ON	ON	OFF
2-	Tab broken	ON	OFF	ON
3-	Tab broken	ON	OFF	OFF
4-	Tab present	OFF	ON	ON
5-	Tab present	OFF	ON	OFF
6-	Tab present	OFF	OFF	ON
7-	Tab present	OFF	OFF	OFF
8-	Tab broken	ON	ON	ON
9-	Tab broken	ON	ON	OFF
A-	Tab broken	ON	OFF	ON
B-	Tab broken	ON	OFF	OFF
C-	Tab present	OFF	ON	ON
D-	Tab present	OFF	ON	OFF
E-	Tab present	OFF	OFF	ON
F-	Tab present	OFF	OFF	OFF

Tab broken = 0 Sensor ON = 0 Sensor ON = 0
Tab present = 1 sensor OFF = 1 Sensor OFF = 1

-4 : Mechanism mode position

[Common table of MN* and HD*]

Mechanism sensor information	Dis-play	Deck operation mode	
Even number (0, 2, 4, 6, 8, A, C, E)	-0	Not established	
	-1	EJECT	EJECT position
	-2	EJECT-EJECT1	Intermodal position
	-3	EJECT1	EJECT1 position
	-4	EJECT1-EJECT2	Intermodal position
	-5	EJECT2	EJECT2 position
	-6	EJECT2-ULSTOP	Intermodal position
	-7	ULSTOP	ULSTOP position
	-8	ULSTOP-UPPER	Intermodal position
	-9	UPPER	Loading (unloading) tape
	-A	UPPER-ONSTOP	Intermodal position
	-B	ONSTOP	PLAY position
	-C	PLAY-FWD/SS	Intermodal position
	-D	FWD/SS	FWD (FWD Still/Slow) position
	-E	FWD/SS-REV	Intermodal position
	-F	REV	REV (REV Still/Slow) position
Odd number (1, 3, 5, 7, 9, B, D, F)	-0	REV-OFFSTOP	Intermodal position
	-1	OFFSTOP	Pinch roller OFF position
	-2	OFFSTOP-FFREWB	Intermodal position
	-3	FFREWB	FF/REW Brake position
	-4	FFREWB-FFREW	Intermodal position
	-5	FFREW	FF/REW position

5.3.6 EMG detail information <2>

The type of the cassette tape and the cassette tape winding position can be confirmed based on the figure in EMG detail information <2> .

Note:

- **EMG detail information <2> is the reference information stored using the remaining tape detection function of the cassette tape. As a result, it may not identify cassette correctly when a special cassette tape is used or when the tape has variable thickness.**

***5 : Cassette tape type <1>**

Display	Cassette tape type <1>
00	Cassette type not identified
16	Large reel/small reel (T-0 to T-15/T-130 to T-210) not classified
82	Small reel, thick tape (T-120) identified/thin tape (T-140) identified
84	Large reel (T-0 to T-60) identified
92	Small reel, thick tape (T-130) identified/thin tape (T-160 to T-210) identified
93	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) not classified
C3	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) being classified
D3	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) being classified
E1	C cassette, thick tape (TC-10 to TC-20) identified
E2	Small reel, thick tape (T-0 to T-100) identified
E9	C cassette, thin tape (TC-30 to TC-40) identified
F1	C cassette, thick tape/thin tape (TC-10 to TC-40) not classified

Notes:

- **Cassette tape type <1> is identified a few times during mode transition and the identification count is variable depending on the cassette tape type. If an EMG occurs in the middle of identification, the cassette tape type may not be able to be identified.**
- **If other value than those listed in the above table is displayed, the cassette tape type is not identified.**

***6 : Cassette tape winding position**

The cassette tape winding position at the moment of EMG is displayed by dividing the entire tape (from the beginning to the end) in 21 sections using a hex number from “00” to “14”.

00 : End of winding
14 : Beginning of winding
FF : Tape position not identified

***7 : Cassette tape type <2> (Winding area)**

Display	Cassette tape type <2>		(Reference) Word data (Beginning) (End)
00	Cassette type not identified		
04 - 08	C cassette, thick tape	TC-10	(0497 - 0506) (0732 - 0858)
05 - 06	Small reel, thick tape	T-20	(05A9 - 0661)
05 - 0C	C cassette, thick tape	TC-20P	(0599 - 05FF) (0AA1 - 0C07)
06 - 0C	C cassette, thin tape	TC-40	(0623 - 063D) (0C41 - 0CC3)
06 - 0C	C cassette, thin tape	TC-30	(0611 - 0638) (0C0C - 0CB2)
07 - 08	Small reel, thick tape	T-40	(07CC - 08E5)
09 - 0B	Small reel, thick tape	T-60	(09FD - 0B78)
0C - 0D	Small reel, thick tape	T-80(DF-160)	(0C20 - 0DFC)
0D - 0F	Small reel, thick tape	T-90(DF-180)	(0D31 - 0F3E)
0E - 10	Small reel, thick tape	T-100	(0E43 - 107F)
10 - 12	Small reel, thin tape	T-140	(10E1 - 120C)
10 - 13	Small reel, thick tape	T-120(DF-240)	(1073 - 1313)
11 - 14	Small reel, thick tape	T-130	(1185 - 1429)
12 - 14	Small reel, thin tape	T-160	(12D3 - 141F)
13 - 14	Small reel, thin tape	T-210(DF-420)	(1373 - 14C3)
13 - 14	Small reel, thin tape	T-180(DF-360)	(1357 - 14C0)
13 - 14	Small reel, thin tape	T-168	(1395 - 14EE)
13 - 14	Small reel, thick tape	DF-300	(13A8 - 14CE)
15 - 16	Large reel	T-20	(1536 - 1618)
16 - 17	Large reel	T-30	(1647 - 175A)
17 - 18	Large reel	T-40	(1759 - 189C)
19 - 1B	Large reel	T-60	(1989 - 1B2F)

Note:

- **The values of cassette tape type <2> in the above table are typical values with representative cassette tapes.**

5.3.7 EMG detail information <3>

Three deck operation modes preceding the deck operation mode in which the EMG occurs may be confirmed based on the figures in the EMG information detail <3>. For the contents of the displayed information, see the table "Deck operation mode" in section "5.3.5 EMG detail information <1>".

5.4 Troubleshooting (DVD SECTION)

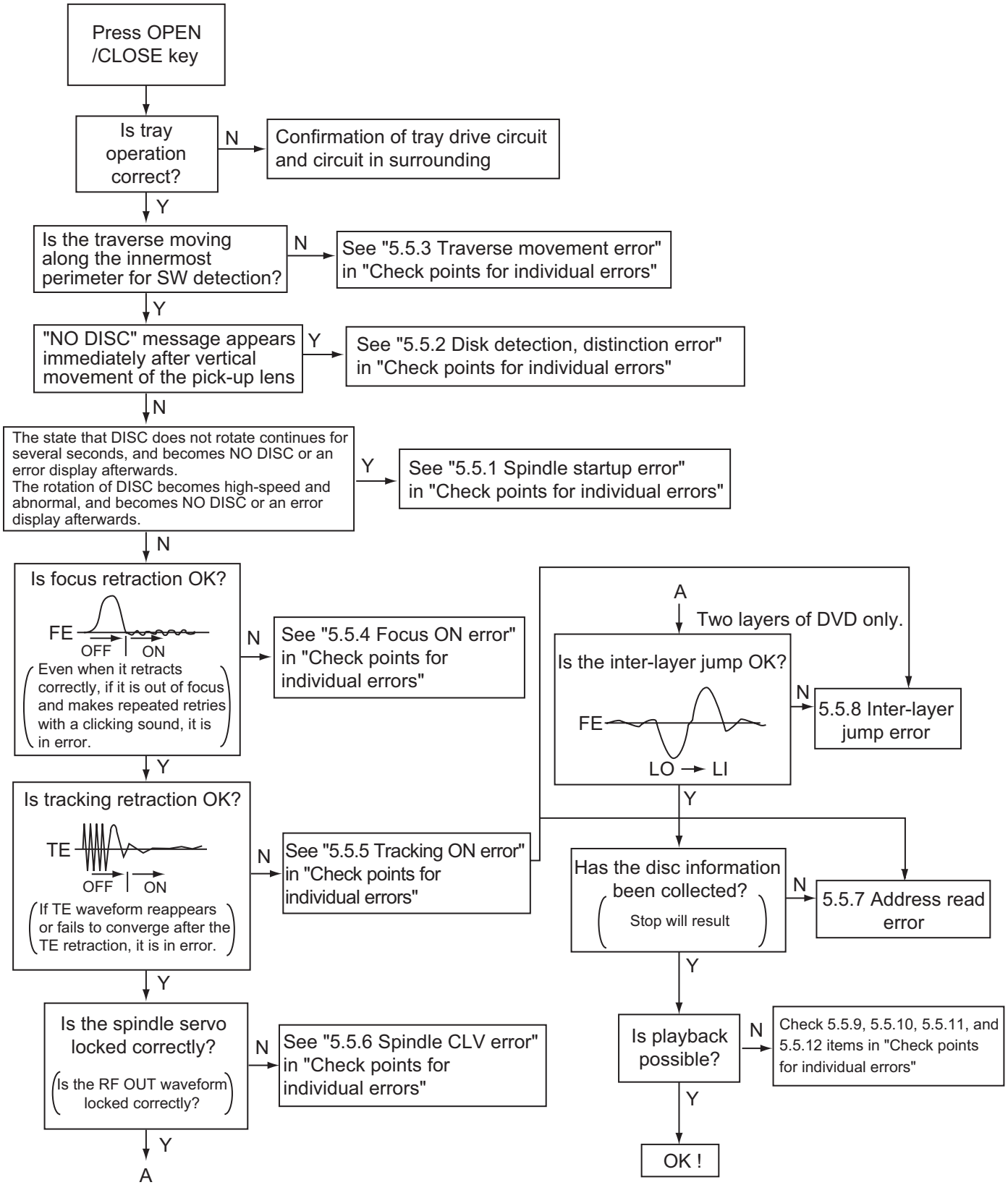

Press OPEN /CLOSE key
Is tray operation correct?
N
Confirmation of tray drive circuit and circuit in surrounding
Y
Is the traverse moving along the innermost perimeter for SW detection?
N
See "5.5.3 Traverse movement error" in "Check points for individual errors"
Y
"NO DISC" message appears immediately after vertical movement of the pick-up lens
Y
See "5.5.2 Disk detection, distinction error" in "Check points for individual errors"
N
The state that DISC does not rotate continues for several seconds, and becomes NO DISC or an error display afterwards.
The rotation of DISC becomes high-speed and abnormal, and becomes NO DISC or an error display afterwards.
Y
See "5.5.1 Spindle startup error" in "Check points for individual errors"
N
Is focus retraction OK?
FE
OFF
ON
Even when it retracts correctly, if it is out of focus and makes repeated retries with a clicking sound, it is in error.
N
See "5.5.4 Focus ON error" in "Check points for individual errors"
Y
Is tracking retraction OK?
TE
OFF
ON
If TE waveform reappears or fails to converge after the TE retraction, it is in error.
N
See "5.5.5 Tracking ON error" in "Check points for individual errors"
Y
Is the spindle servo locked correctly?
Is the RF OUT waveform locked correctly?
N
See "5.5.6 Spindle CLV error" in "Check points for individual errors"
Y
A
A
Two layers of DVD only.
Is the inter-layer jump OK?
FE
LO → LI
N
5.5.8 Inter-layer jump error
Y
Has the disc information been collected?
Stop will result
N
5.5.7 Address read error
Y
Is playback possible?
N
Check 5.5.9, 5.5.10, 5.5.11, and 5.5.12 items in "Check points for individual errors"
Y
OK !

Fig.5-4a

5.5 Check points for each error (DVD SECTION)

5.5.1 Spindle start error

(1) Defective spindle motor

- Are there several ohms resistance between each pin of CN201 "1-2","2-3","1-3"?
  (The power supply is turned off and measured.)
- Is the sign wave of about 100mVp-p in the voltage had from each terminal?
  [CN201"10"(H1+),"11"(H1-),"7"(H2+),"8"(H2-),"5"(H3+),"6"(H3-)]

(2) Defective spindle motor driver (IC251)

- Has motor drive voltage of a sine wave or a rectangular wave gone out to each terminal(SM1~3) of CN201"1,2,3" and IC251"2,4,7"?
- Is FG pulse output from the terminal of IC251"24"(FG) according to the rotation of the motor?
- Is it "L(about 0.9V)" while terminal of IC251"15"(VH) is rotating the motor?

(3) Has the control signal come from servo IC or the microcomputer?

- Is it "L" while the terminal of IC251"18"(SBRK) is operating?
  Is it "H" while the terminal of IC251"23"(/SPMUTE) is operating?
- Is the control signal input to the terminal of IC251"22"(EC)?
  (changes from VHALF voltage while the motor is working.)
- Is the VHALF voltage input to the terminal of IC251"21"(ECR)?

(4) Is the FG signal input to the servo IC?

- Is FG pulse input to the terminal of IC301"69"(FG) according to the rotation of the motor?

5.5.2 Disc Detection, Distinction error (no disc, no RFENV)

- Laser is defective.
- Front End Processor is defective (IC101).
- APC circuit is defective. --- Q101,Q102.
- Pattern is defective. --- Lines for CN101 - All patterns which relate to pick-up and patterns between IC101
- IC101 --- For signal from IC101 to IC301, is signal output from IC101 "20" (ASOUT) and IC101 "41"(RFENV) and IC101 "22" (FEOUT)?

5.5.3 Traverse movement NG

(1) Defective traverse driver

- Has the voltage come between terminal of CN101 "2" and "4" ?

(2) Defective BTL driver (IC201)

- Has the motor drive voltage gone out to IC201"17" or "18"?

(3) Has the control signal come from servo IC or the microcomputer?

- Is it "H" while the terminal of IC201"9"(STBY1) ?
- TRSDRV Is the signal input? (IC301 "67")

(4) TRVSW is the signal input from microcomputer? (IC301 "56")

5.5.4 Focus ON NG

- Is FE output ? --- Pattern, IC101
- Is FODRV signal sent ? (R209) --- Pattern, IC301 "115"
- Is driving voltage sent ? IC201 "13", "14" --- If NG, pattern, driver, mechanical unit .
- Mechanical unit is defective.

5.5.5 Tracking ON NG

- When the tracking loop cannot be drawn in, TE shape of waves does not settle.
- Mechanical unit is defective.
  Because the self adjustment cannot be normally adjusted, the thing which cannot be normally drawn in is thought.
- Periphery of driver (IC201)
  Constant or IC it self is defective.
- Servo IC (IC301)
  When improperly adjusted due to defective IC.

5.5.6 Spindle CLV NG

- IC101 -- "30"(ARF-), "31(ARF+).
- Does not the input or the output of driver's spindle signal do the grip?
- Has the tracking been turned on?
- Spindle motor and driver is defective.
- Additionally, "IC101 and IC301" and "Mechanism is defective(jitter)", etc. are thought.

5.5.7 Address read NG

- Besides, the undermentioned cause is thought though specific of the cause is difficult because various factors are thought.
  Mechanism is defective. (jitter)
  IC301
  The disc is dirty or the wound has adhered.

5.5.8 Between layers jump NG (double-layer disc only)

Mechanism defective
Defect of driver's IC(IC201)
Defect of servo control IC(IC301)

5.5.9 Neither picture nor sound is output

(1) It is not possible search

- Has the tracking been turned on?
- To " Tracking ON NG" in "Check points for each error" when the tracking is not normal.
- Is the feed operation normal?
  To " traverse movement NG" in "Check points for each error" when it is not normal.Are not there caught of the feeding mechanism etc?

5.5.10 Picture is distorted or abnormal sound occurs at intervals of several seconds.

Is the feed operation normal?
Are not there caught of the feeding mechanism etc?

5.5.11 Others

- The image is sometimes blocked, and the image stops.
- The image is blocked when going to outer though it is normal in suroundings in the disk and the stopping sympton increases.

  There is a possibility with bad jitter value for such a symptom.

5.5.12 CD During normal playback operation

(1) Is TOC reading normal?

- Displays total time for CD-DA.
- Shifts to double-speed mode for V-CD

(2) Is playback afterwards possible?

(3) When can not do a normal playback

- --:-- is displayed during FL search.
  According to [It is not possible to search] for DVD, check the feed and tracking systems.
- No sound is output although the time is displayed.(CA-DA)
  DAC, etc, other than servo.
- The passage of time is not stable, or picture is abnormal.(V-CD)
- The wound of the disc and dirt are confirmed.

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

DIVISION OF JVC AMERICAS CORP.

www.jvcservice.com(US Only)

JVC CANADA INC.

Head office : 21 Finchdene Square Scarborough, Ontario M1X 1A7 (416)293-1311

JVC®

(No.YD001)

Printed in Japan
WPC

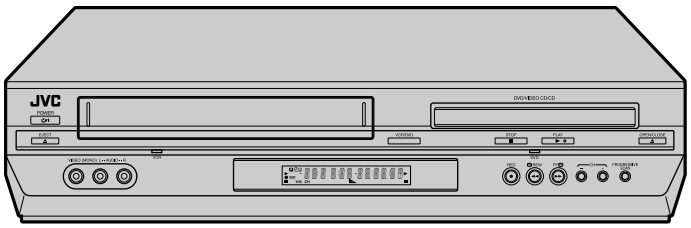
JVC

SCHEMATIC DIAGRAMS

DVD PLAYER & VIDEO CASSETTE RECORDER

HR-XVC30US, HR-XVC33UC, HR-XVC33UM, HR-XVC33US, HR-XVS44UC, HR-XVS44UJ, HR-XVS44US

CD-ROM No.SML200311



Super VHS ET (S-VHS model) S-VHS (S-VHS model) Hi-Fi VHS (VHS model) DVD VIDEO dts DIGITAL OUT SQPB (VHS model) 3D-PHONIC DOLBY DIGITAL COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL VIDEO COMPACT disc SUPER VIDEO

HR-XVC30US,HR-XVC33UC,HR-XVC33UM,HR-XVC33US,HR-XVS44UC,HR-XVS44UJ,HR-XVS44US [D3PV1,D3PS1]

COPYRIGHT © 2003 VICTOR COMPANY OF JAPAN, LIMITED

No.YD001SCH
2003/10

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

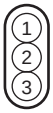
2. Indications of control voltage

AUX : Active at high.

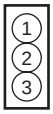
$\overline{\text{AUX}}$ or AUX(L) : Active at low.

3. Interpreting Connector indications

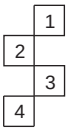
Removable connector



Wire soldered directly on board



Non-removable Board connector



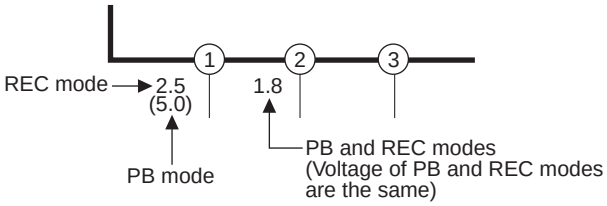
Board to Board

Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
2) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

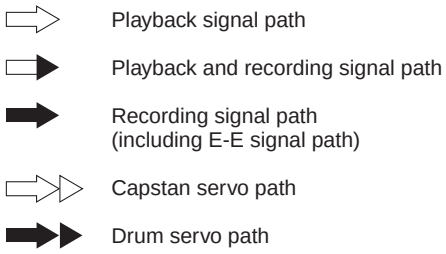


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

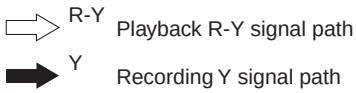
5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.

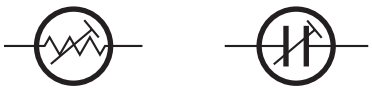


(Example)



6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

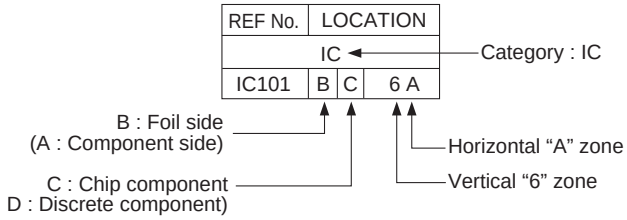
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

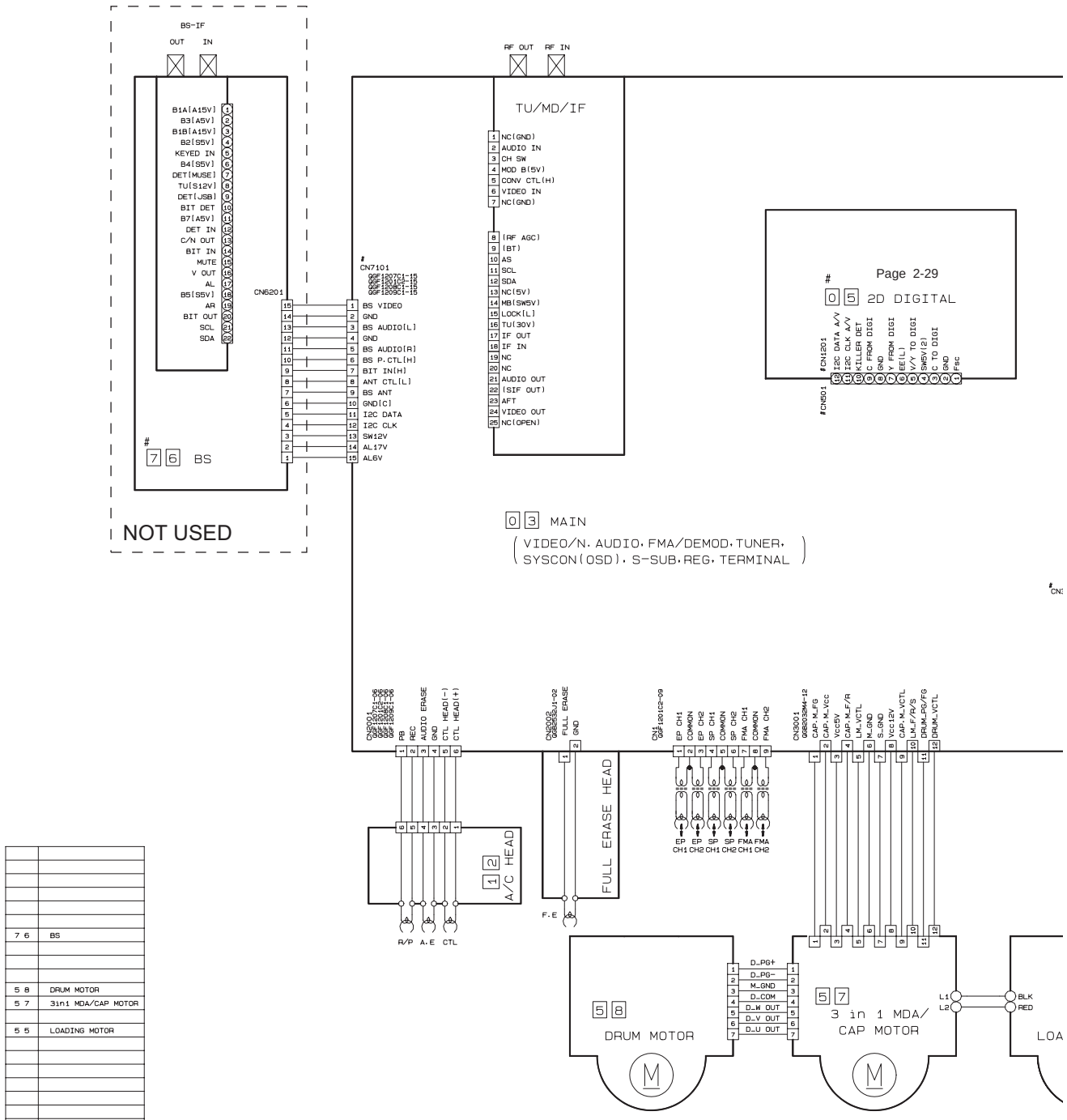
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

■ BOARD INTERCONNECTIONS



7 6	BS
5 8	DRUM MOTOR
5 7	3in1 MDA/CAP MOTOR
5 5	LOADING MOTOR
3 6	SW/JACK
2 8	DISPLAY
1 2	A/C HEAD
0 5	2D DIGITAL
0 3	MAIN
0 1	SW REG
NO	NAME

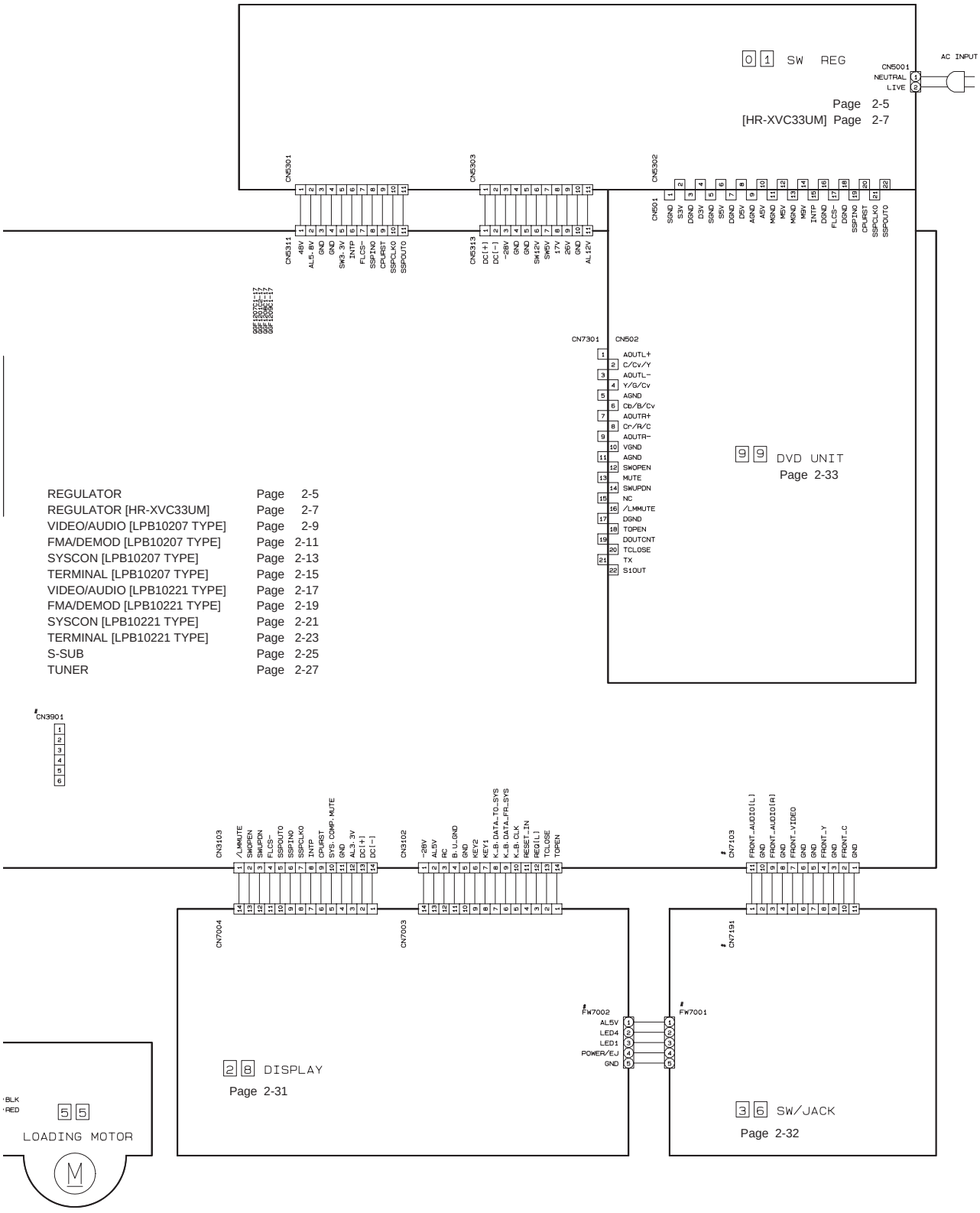
#:DIFFERENCE TABLE

	7 6 BS CN7101
D3PV5 D3PS5	YES
D3PV1 D3PS1	NO

	0 5 2D DIGITAL CN501	CN7103	CN7191
D3PV	NO	5-11	1-7
D3PS	YES	1-11	1-11

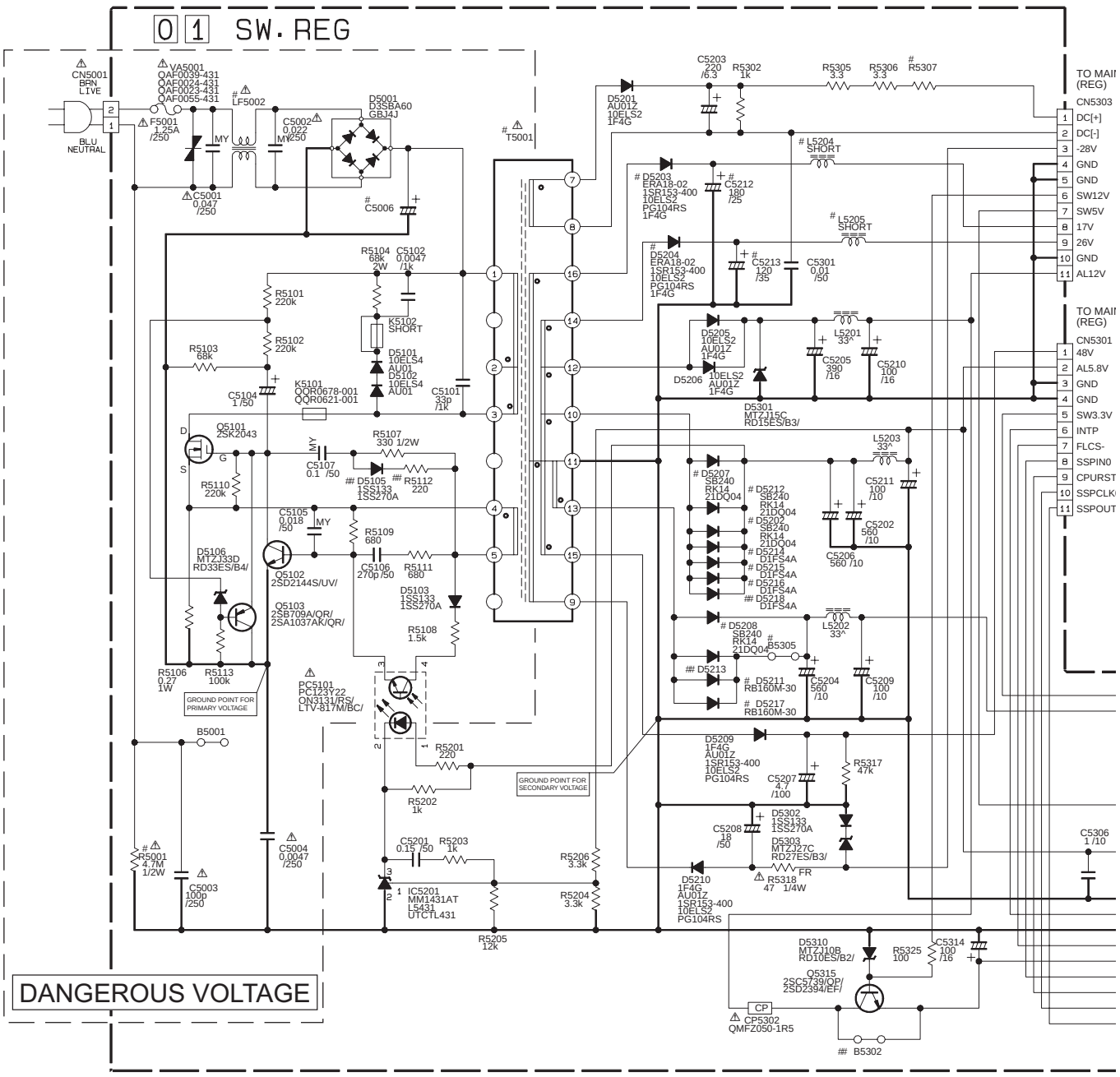
FRONT ILLUMI	FW7001 FW7002
YES	1-5
NO	3-5

CN3901 ARE USED ONLY FOR FLASH CPU.



p10536001a_rev0

■ SWITCHING REGULATOR AND MAIN(REGULATOR) SCHEMATIC DIAGRAMS



MARK ELEMENTS ARE NOT MOUNTED

DIFFERENCE TABLE 1

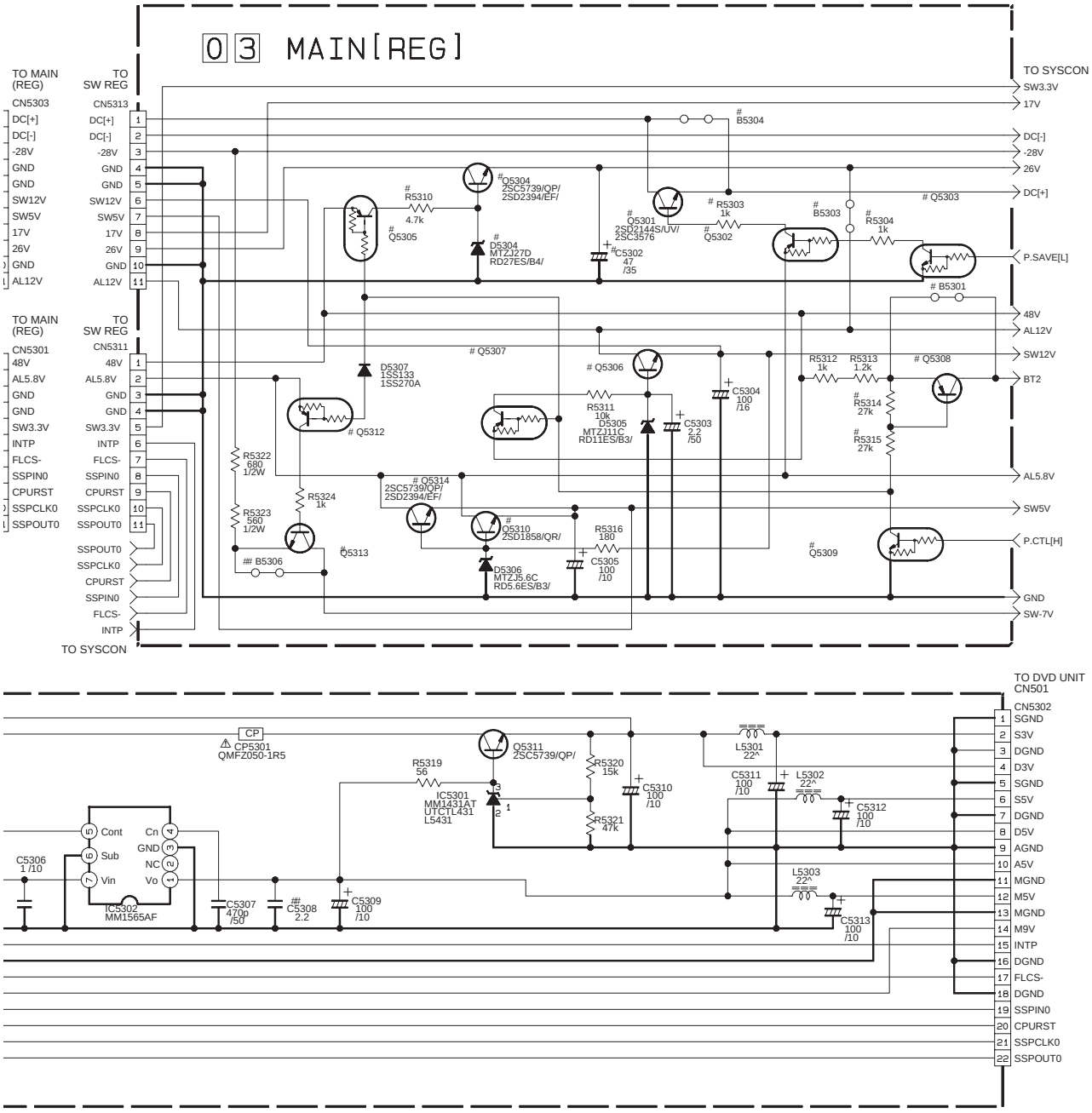
	R5001		C5213 C5302 Q5305 D5204 D5304 R5310 L5205 Q5304	B5303	Q5301 R5303 Q5302 R5304 Q5303	B5304	Q5308 R5314 R5315	B5301	T5001	
US	YES		NO	YES	NO	YES	NO	YES	QQS0219-001	
JPN	NO		YES	NO	YES	NO	YES	NO	QQS0218-001 QQS0219-001	

DIFFERENCE TABLE 2

	C5006	LF5002	C5212 D5203 L5204	Q5306	Q53
BS SVHS	220 /200	QQR0908-001 QQR0984-001 QQR1215-001 QQR1385-001	YES	2SD1302/ST/	N
BS HIFI	220 /200	QQR0908-001 QQR0984-001 QQR1215-001 QQR1385-001	YES	2SD2144S/UV/ 2SC3576	YE
SVHS	150 /200	QQR0532-001 QQR0932-001 QQR0516-001 QQR0816-001 QQR1428-001	NO	2SD1302/ST/	N
HIFI	150 /200	QQR0532-001 QQR0932-001 QQR0516-001 QQR0816-001 QQR1428-001	NO	2SD2144S/UV/ 2SC3576	YE

DIFFERENCE TABLE 3

MAIN PWB	Q5302 Q5312	Q5303 Q5309	Q5305 Q5307	Q5308	Q5313
LPB10206-001*	PDTA114EU DAT114EUA UN5111 RN2302	PDTC114EU DTC114EUA UN5211 RN1302	PDTA144WU DTA144WUA UN511E RN2309	2SA1576A/RS/	2SD1819A/RS/ 2SC4081/RS/ 2PC4081/R/
LPB10221-001*	UN2111 DTA114EKA	UN2211 DTC114EKA	UN211E DTA144WKA	2SA1037AK/QR/ 2SA1530A/QR/	2SD601A/QRS/ 2SC2412K/QRS/ 2SC3982A/QRS/

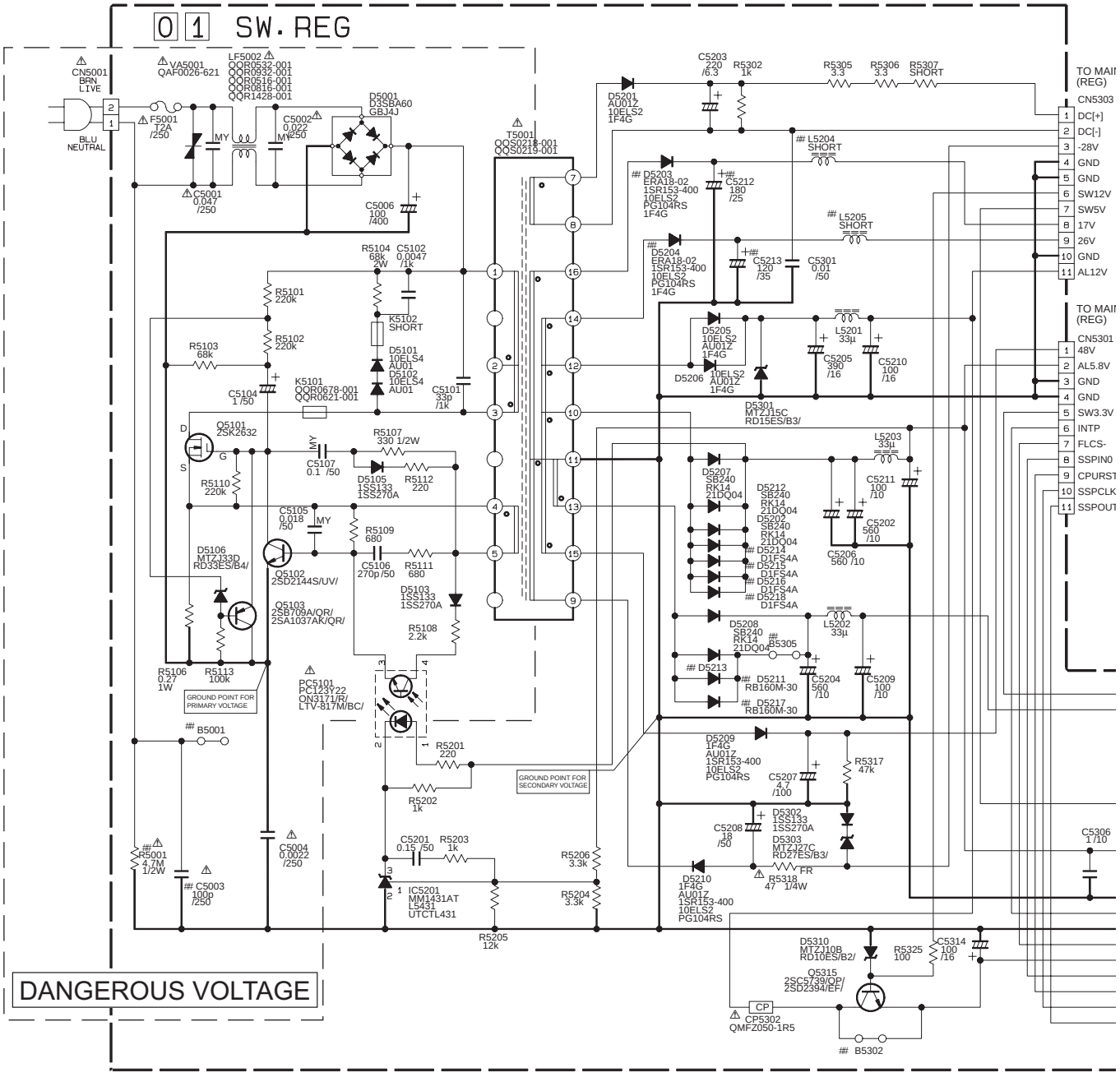


	Q5310	Q5314	D5202 D5207 D5212	D5214 D5215 D5216	D5208	D5211 D5217 B5305	R5307
T/	NO	YES	NO	YES	NO	YES	3.3
UV/	YES	NO	NO	YES	NO	YES	3.3
T/	NO	YES	YES	NO	YES	NO	SHORT
UV/	YES	NO	YES	NO	YES	NO	SHORT

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

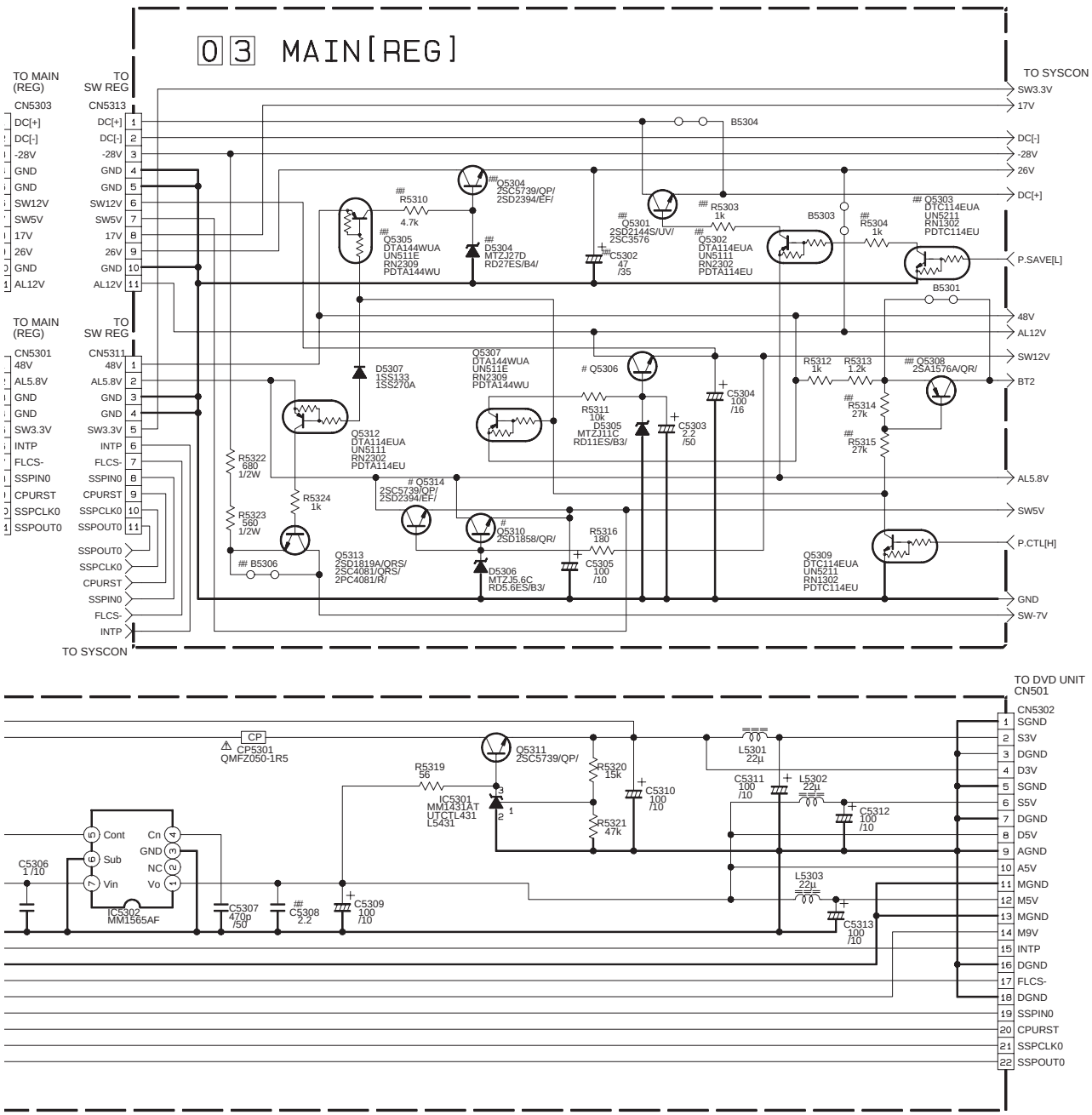
p20346001a_rev3



MARK ELEMENTS ARE NOT MOUNTED

DIFFERENCE TABLE 1

	Q5306	Q5310	Q5314
SVHS	2SD1302/ST/	NO	YES
HIFI	2SD2144S/UV/ 2SC3576	YES	NO

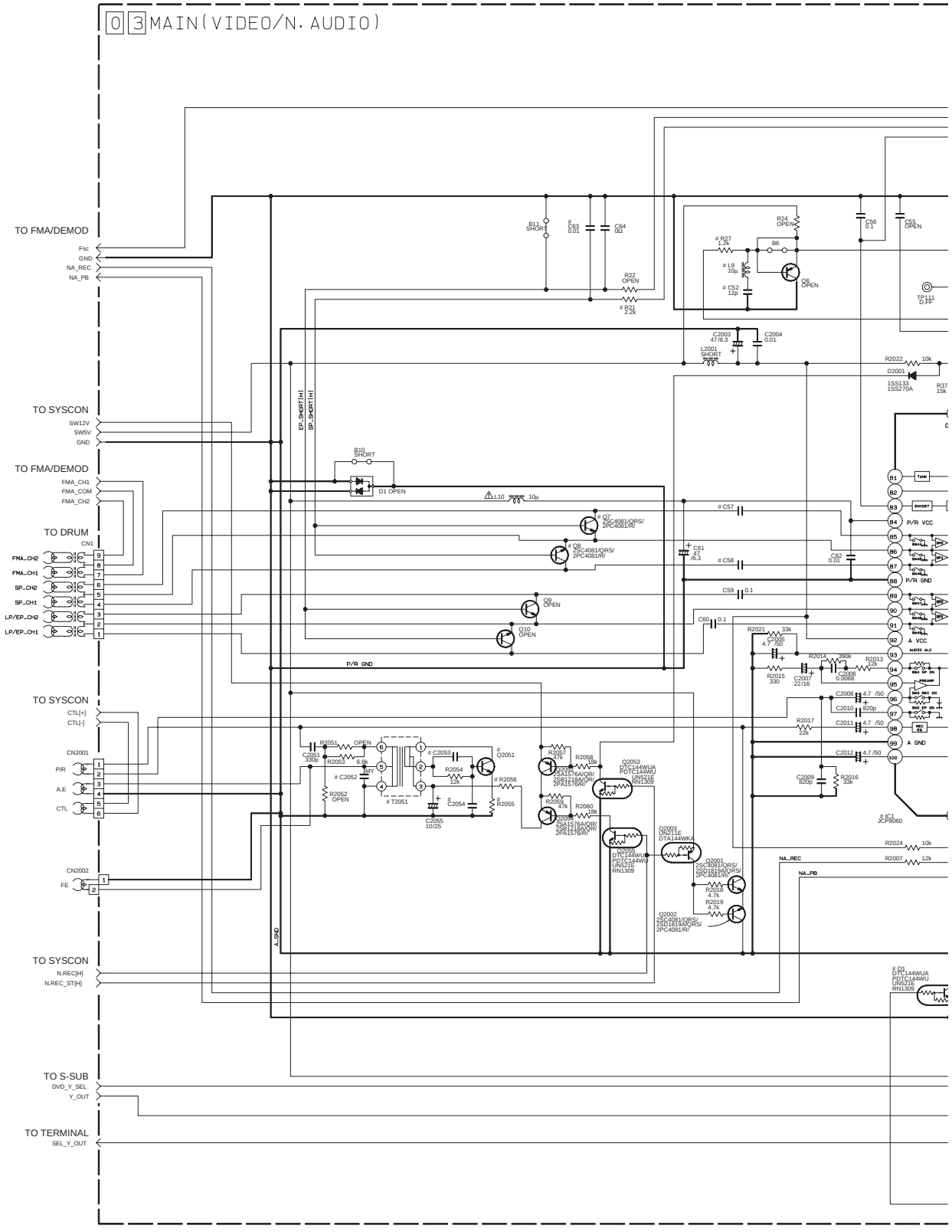


NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MY MYLER
N NON POLAR

p20355001a_rev0

■ MAIN(VIDEO/N.AUDIO) SCHEMATIC DIAGRAM [LPB10207 TYPE]



VIDEO

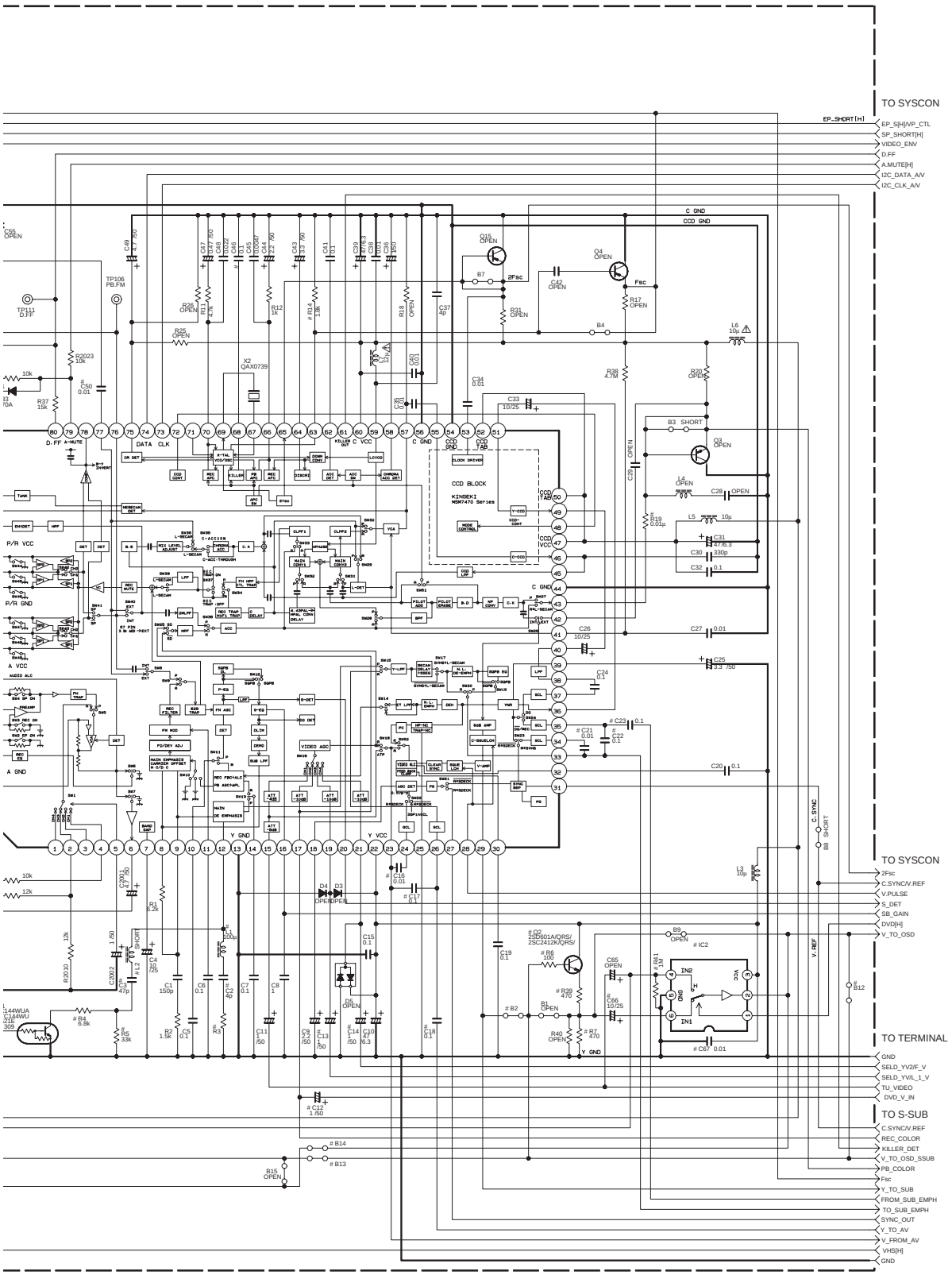
#DIFFERENCE TABLE 1

	IC1	Q1,R4,R14,C4,C16 C18,C21,C23,L2 MS	R5 C17, C22	R27, C50 C52, L9	R3	R19	C2	C46	L1	R18~R14 R5~R7 R33~R41 Q2 C66 C67	IC2
SVHS	NSA/MSA	○	×	○	120	○	4p	0-1	100	○	NN1503
VHS	NVA/MSA	×	○	×	8.2k	×	33p	0-033	SHORT	×	NN1503

	FV	FS	L1V	L1S	L2V	L2S	TU	BS	C12	C13	C14
VHS	○	×	○	×	×	×	○	○	○(DVD V)	—	○(SEL V)
	○	×	○	×	×	×	○	×	○(DVD V)	○ (L1 V)	○(F V)
	○	×	○	×	○	×	○	×	○(DVD V)	—	○(SEL V)
	○	×	×	×	×	×	○	×	○(DVD V)	—	○(F V)
SVHS	○	○	○	○	×	×	○	×	REC C	○(SEL Y)	○(F V)
	○	○	○	○	○	○	○	×	REC C	○(SEL Y)	○(SEL V)
	○	○	○	○	○	○	○	○	REC C	○(SEL Y)	○(SEL V)

#DIFFERENC

DOM.	2S
US	2S
UM	2S

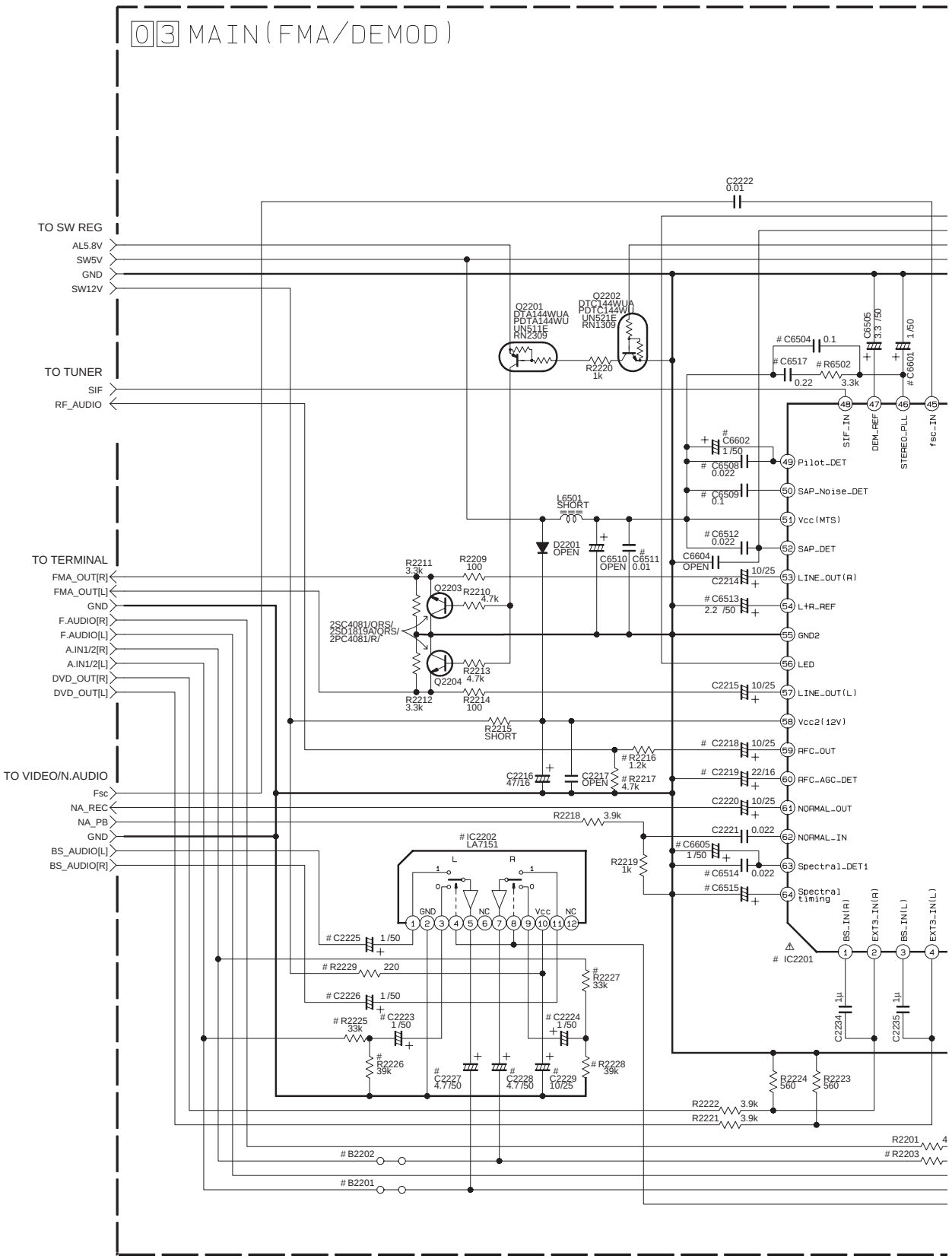


#DIFFERENCE TABLE 1

	AUDIO						VIDEO	
	Q2051	T2051	R2055	R2056	C2052	C2053	C2054	C57, C58	Q7, Q8 R21, C63
DOM.	2SC2411K/QR/	QGR1197-001 QGR1279-001	4.7	47	0.047	0.0033	0.0068	0.01	○
US UM	2SD601A/QRS/ 2SC2412K/QRS/	PELN0832 PELN0954 QGR0002-001	3.3	56	0.082	0.0047	0.022	0.1	×

p10525001a_rev0

■ MAIN(FMA/DEMOD) SCHEMATIC DIAGRAM [LPB10207 TYPE]

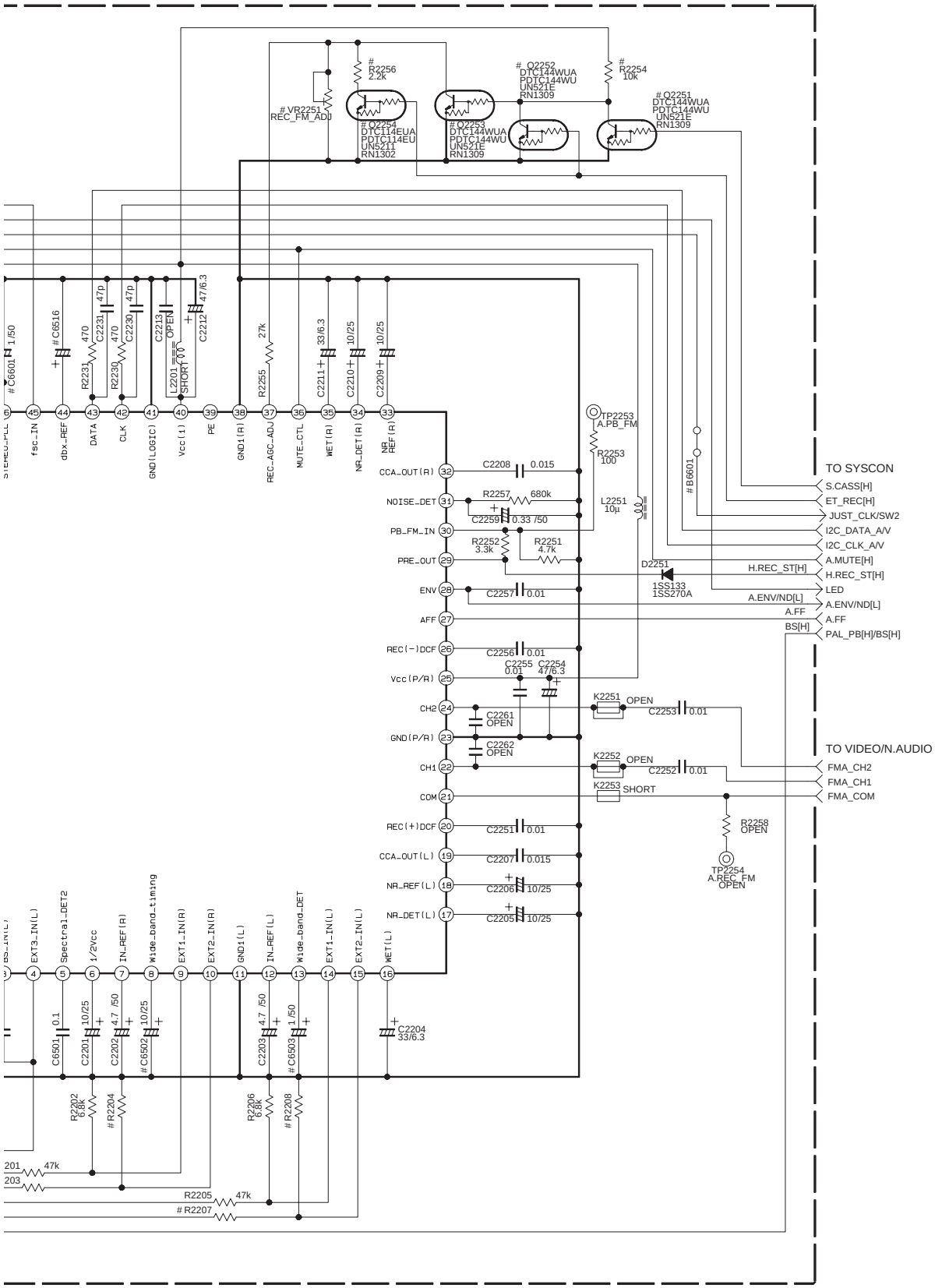


DIFFERENCE TABLE

JP/US	IC2201	R6502 C6502 - C6504 C6508 · C6509 C6511 - C6514 C6517	C6515	C6516	B6601 C6601 C6602 C6605
JP	AN3672NFBP	×	1/50	10/25	○
OTHERS	AN3663FBP	○	3.3/50	4.7/25	×

S-VHS	VR2251	Q2251 - Q2254 R2254 · R2256
○	QRE141J -472Y	○
×	SHORT	×

AF.OUT	R2216·R2217 C2218·C2219
○	○
×	×



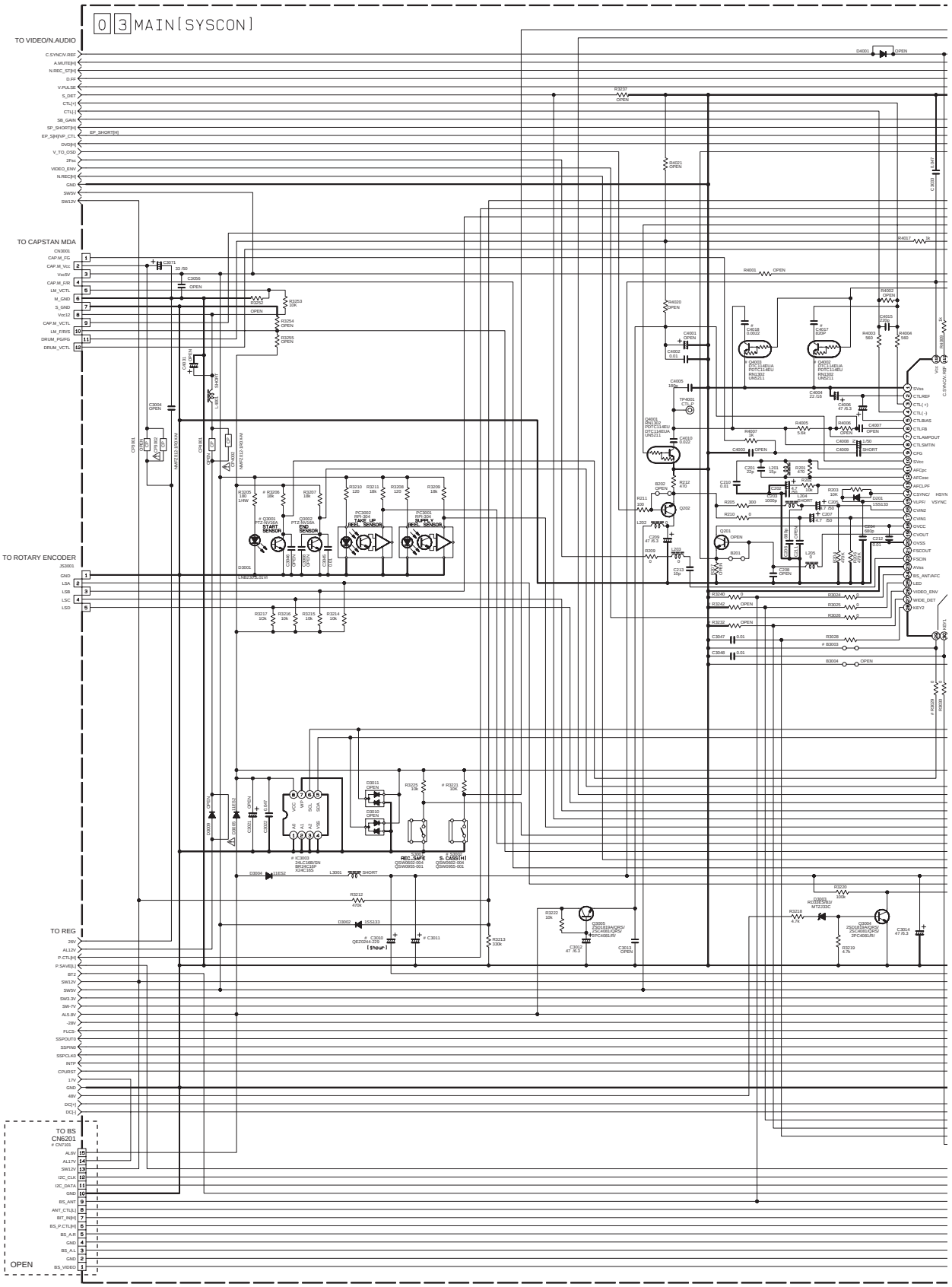
BS	B2201 B2202	IC2202 R2225 - R2229 C2223 - C2229	R2203 R2207	R2204 R2208
○	×	○	33k	18k
×	○	×	47k	6.8k

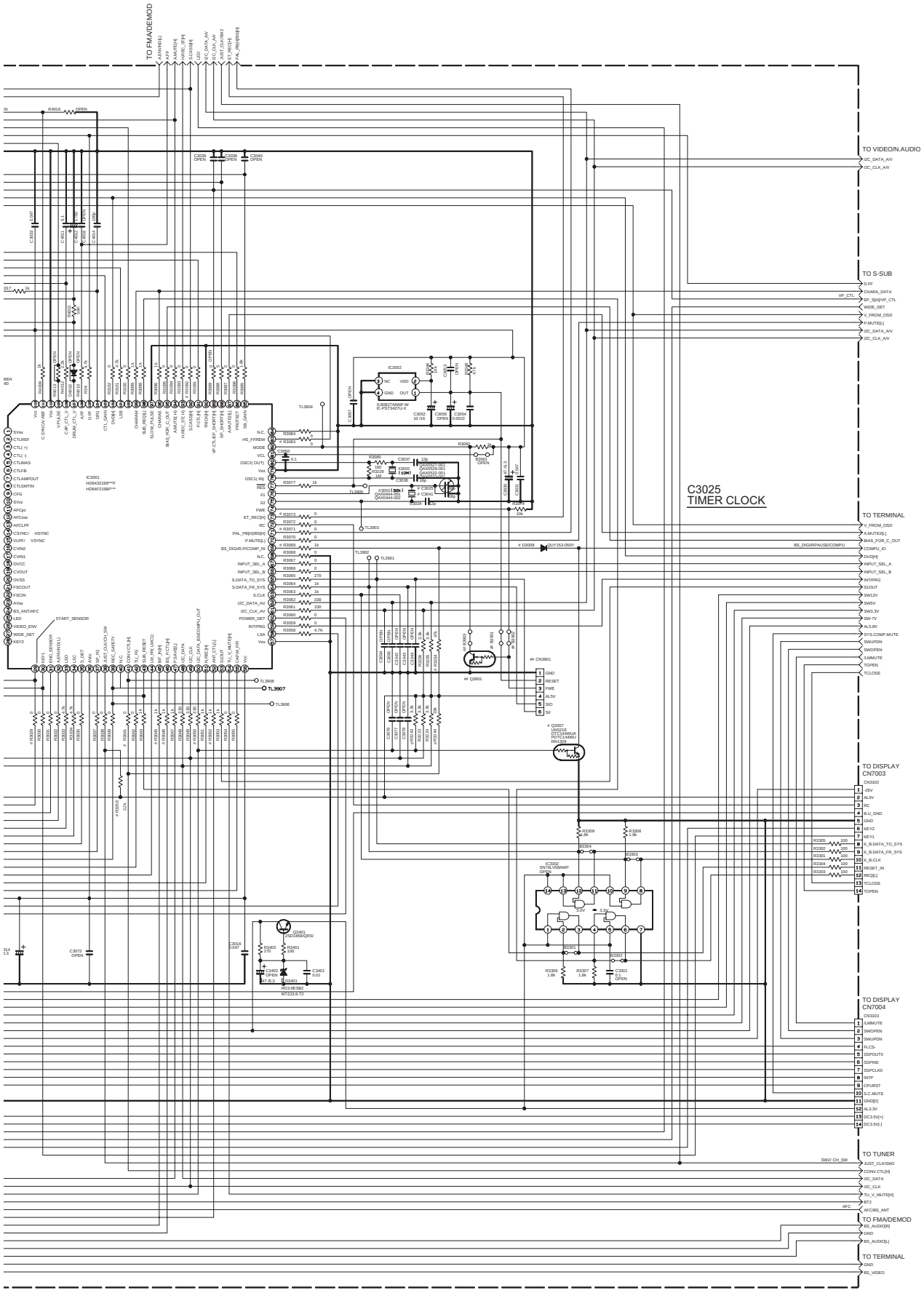
NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

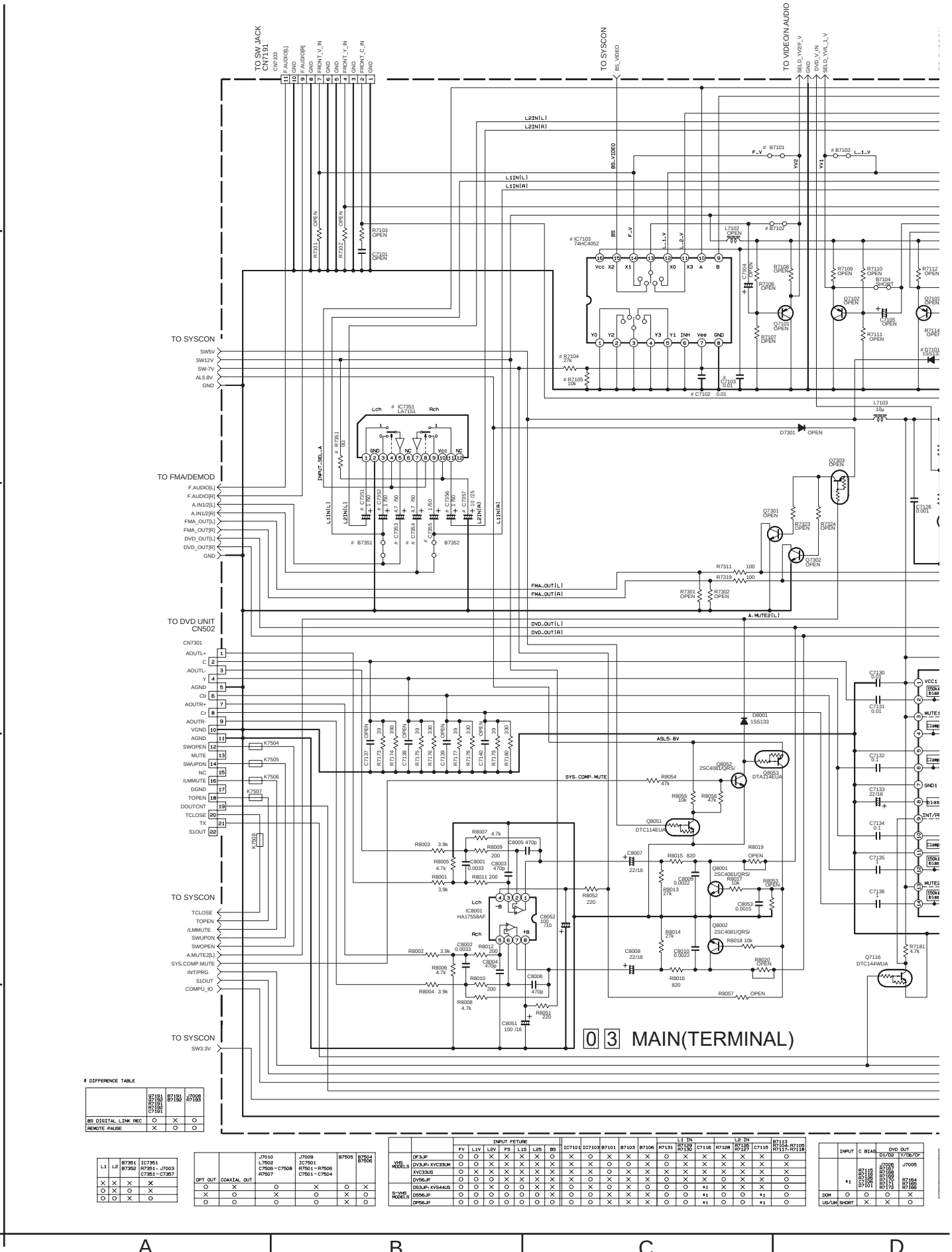
p20343001a_rev0

■ MAIN(SYSCON) SCHEMATIC DIAGRAM [LPB10207 TYPE]




TO FM/AMDEMOD
TO VIDEO/N.AUDIO
TO S-SUB
TO TERMINAL
C3025
TIMER CLOCK
TO DISPLAY
CN7003
TO DISPLAY
CN7004
TO TUNER
TO FM/AMDEMOD
TO TERMINAL
START_SENSOR
IC3001
HD6432199**F
HD64F2198F**
IC3002
S-8521AANNP-W
IC-PST3427U-X
IC3300
SW-TXL450AWP
CN3901
CN3902
CN3903
CN3904
CN3905
CN3906
CN3907
CN3908
Q3901
Q3907
DTC144WUA
DTC144WKA
RN1309
Q3401
2SC1959QRS/
2SC4738S
MT223.6-T2
D3008
DUY153-050Y
X3001
X3002
X3003
X3004
X3005
X3006
X3007
X3008
X3009
X3010
X3011
X3012
X3013
X3014
X3015
X3016
X3017
X3018
X3019
X3020
X3021
X3022
X3023
X3024
X3025
X3026
X3027
X3028
X3029
X3030
X3031
X3032
X3033
X3034
X3035
X3036
X3037
X3038
X3039
X3040

■ MAIN(TERMINAL) SCHEMATIC DIAGRAM [LPB10207 TYPE]



DIFFERENCE TABLE

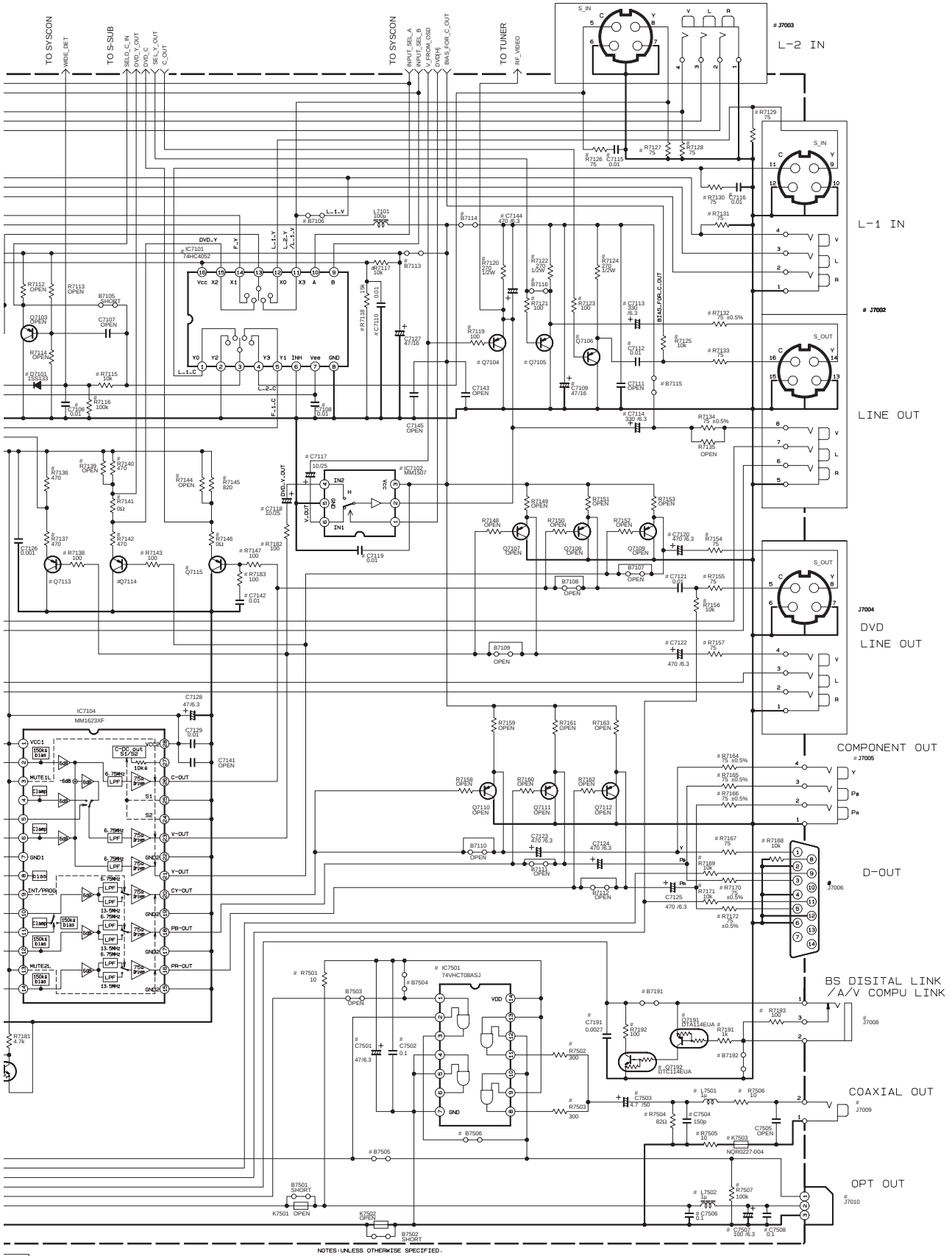
	D7191 R7182 R7183 R7191	B7191 B7192	J7008 R7193
BS DIGITAL LINK REC	O	×	O
REMOTE PAUSE	×	O	O

L1	L2	B7351 B7352	IC7351 R7351 - J7003 C7351 - C7357
×	×	×	×
O	×	O	×
O	O	×	O

OPT OUT	COAXIAL OUT	J7010 L7502 C7508 - C7508 R7507	J7009 IC7501 R7501 - R7506 C7501 - C7504	B7505	B7504 B7506
O	×	O	×	O	×
×	O	×	O	×	O
O	O	O	O	×	O

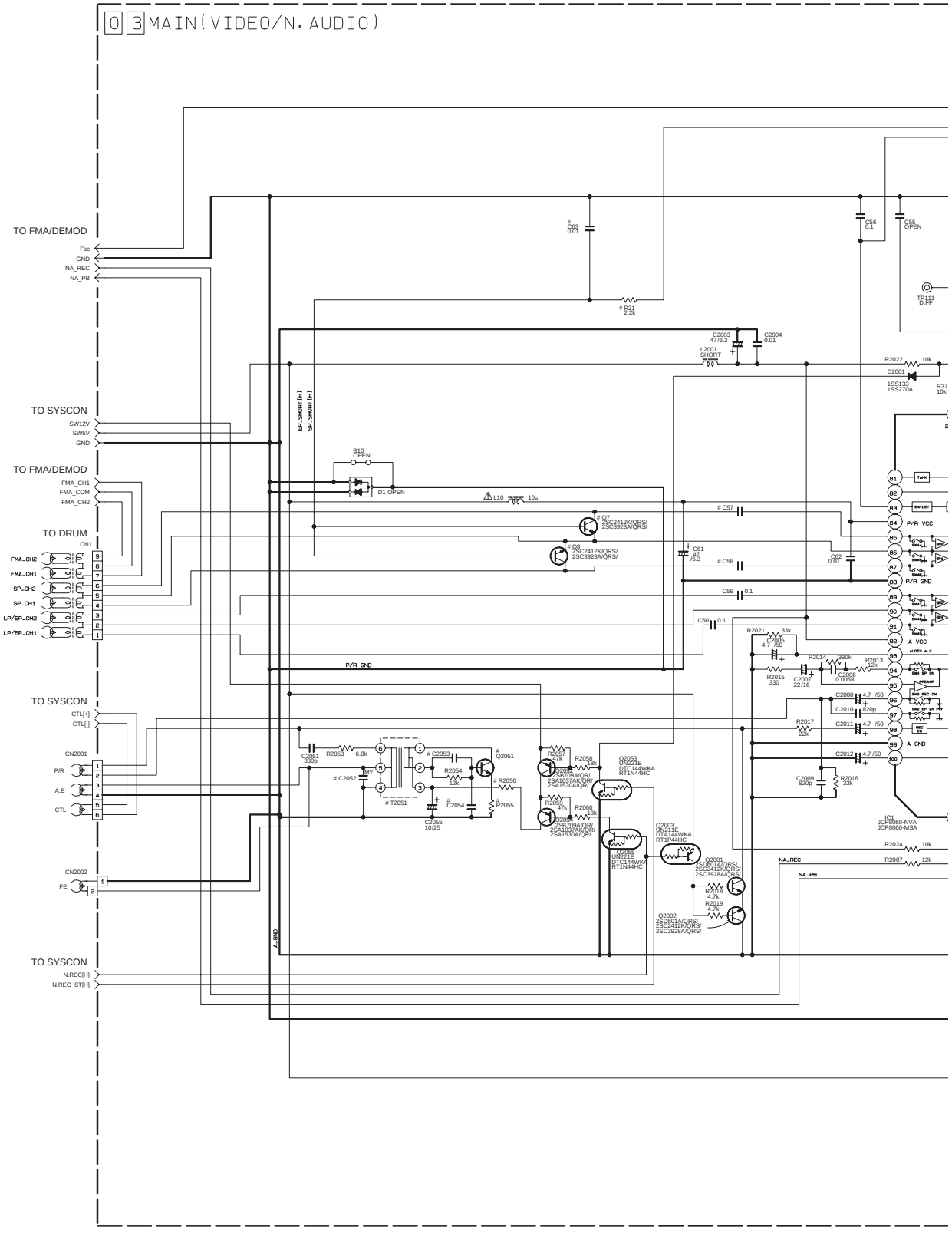
		INPUT FETURE						IC7101	IC7103	B7101	B7103	B7106	R7131	L1 IN R7128 R7130	C7116	L2 IN R7128 R7127	C7115	R7113 R7114 R7105 R7117 R7116
		FV	L1V	L2V	FS	L1S	L2S	BS										
VHS MODELS	DF3JP	O	O	×	×	×	×	O	×	O	×	×	×	O	×	×	×	O
	DV3JP-XVC33UM	O	O	×	×	×	×	×	×	×	O	O	×	O	×	×	×	×
	XVC33US	O	×	×	×	×	×	×	×	×	O	×	×	×	×	×	×	×
	DV56JP	O	O	O	×	×	×	×	×	O	×	×	×	O	×	×	×	O
S-VHS MODELS	DS3JP-XVS44US	O	O	×	O	O	×	×	×	O	×	×	×	O	O	*1	×	×	×	O
	DS56JP	O	O	O	O	O	O	O	×	O	×	×	×	O	O	*1	O	O	×	O
	DP56JP	O	O	O	O	O	O	O	×	O	×	×	×	O	O	*1	O	O	×	O

	INPUT	C BIAS	DVD OUT D1/D2	DVD OUT Y/CB/CR
	*1	R7165 R7168 C7166 C7168	J7006 R7167 R7169 R7170 R7171 R7172	J7005 R7164 R7165 R7166
DDM	O	O	O	×
US/UM SHORT	×	×	×	O



p10526001a_rev0

■ MAIN(VIDEO/N.AUDIO) SCHEMATIC DIAGRAM [LPB10221 TYPE]

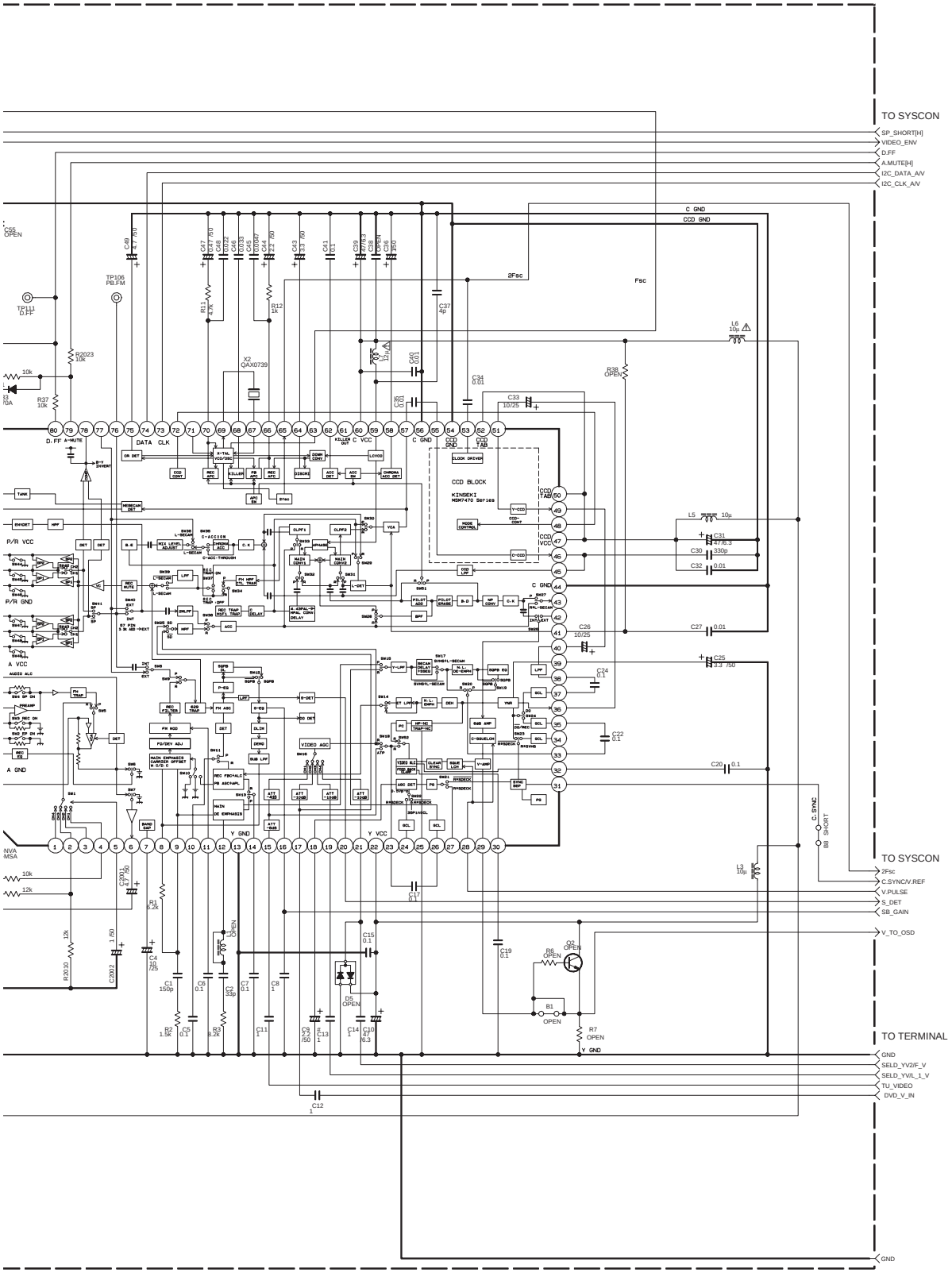


#DIFFERENCE TABLE 1

	FV	L1V	TU	BS	C12	C13	C14
VHS	O	O	O	O	O(DVD V)	—	O(SEL V)
	O	O	O	×	O(DVD V)	O (L1 V)	O(F V)
	O	×	O	×	O(DVD V)	—	O(F V)

#DIFFERENCE TABLE 1

	Q2051	T2051	R2055	R2056	C2052	C2053	C2054	C57, C58	C57, C58 R21, C63
DOM.	2SC2412K/QR/ 2SD602A/RS/	GQR1197-001 GQR1279-001	4.7	47	0.047	0.0033	0.0068	0.01	O
US UM	2SD601A/QRS/ 2SC2412K/QRS/	PELN0832 PELN0954 GQR0002-001	3.3	82	0.082	0.0047	0.022	0.1	×

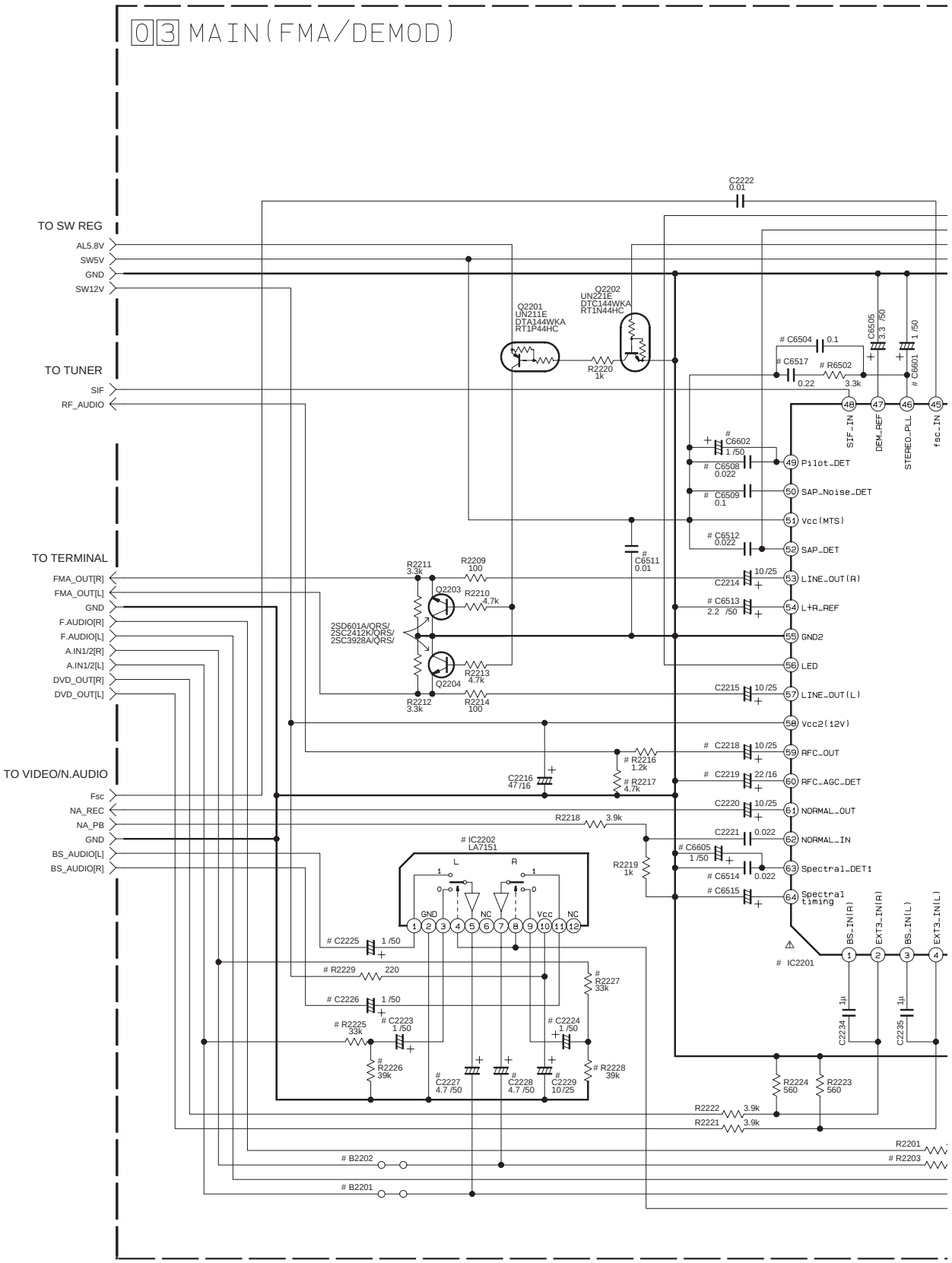


NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10568001a_rev0

■ MAIN(FMA/DEMOD) SCHEMATIC DIAGRAM [LPB10221 TYPE]

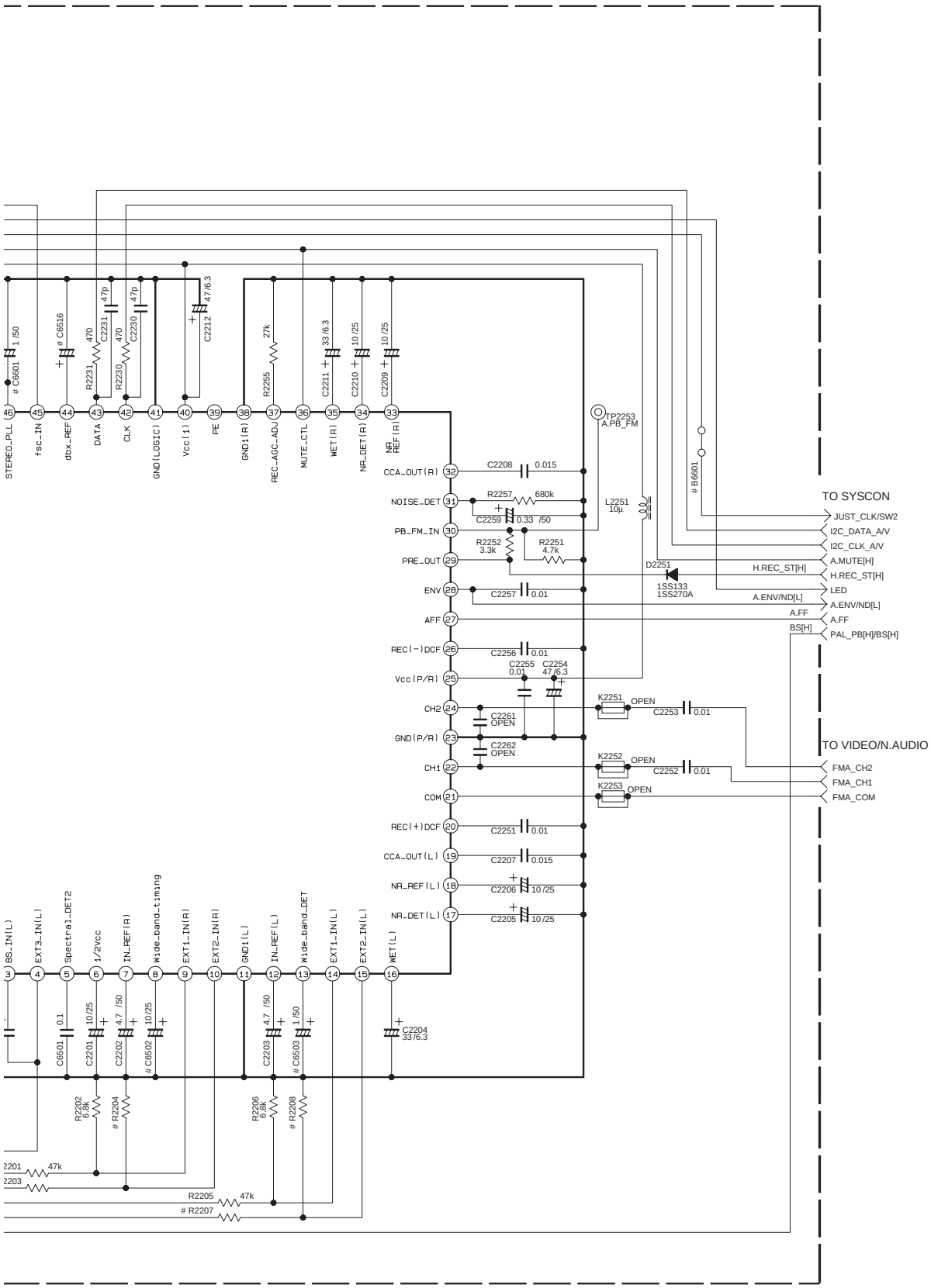


DIFFERENCE TABLE

JP/US	IC2201	R6502 C6503 - C6504 C6508 - C6509 C6511 - C6514 C6517	C6515	C6516	B6601 C6601 C6602 C6605
JP	AN3672NFBP	×	1/50	10/25	○
OTHERS	AN3663FBP	○	3.3/50	4.7/25	×

RF.OUT	R2216·R2217 C2218·C2219
○	○
×	×

L-1	BS	B2201 B2202	IC2202 R2225 - R2229 C2223 - C2229	R2203 R2207	R2204 R2208
○	○	×	○	33k	18k
○	×	○	×	47k	6.8k
×	×	×	×	×	×

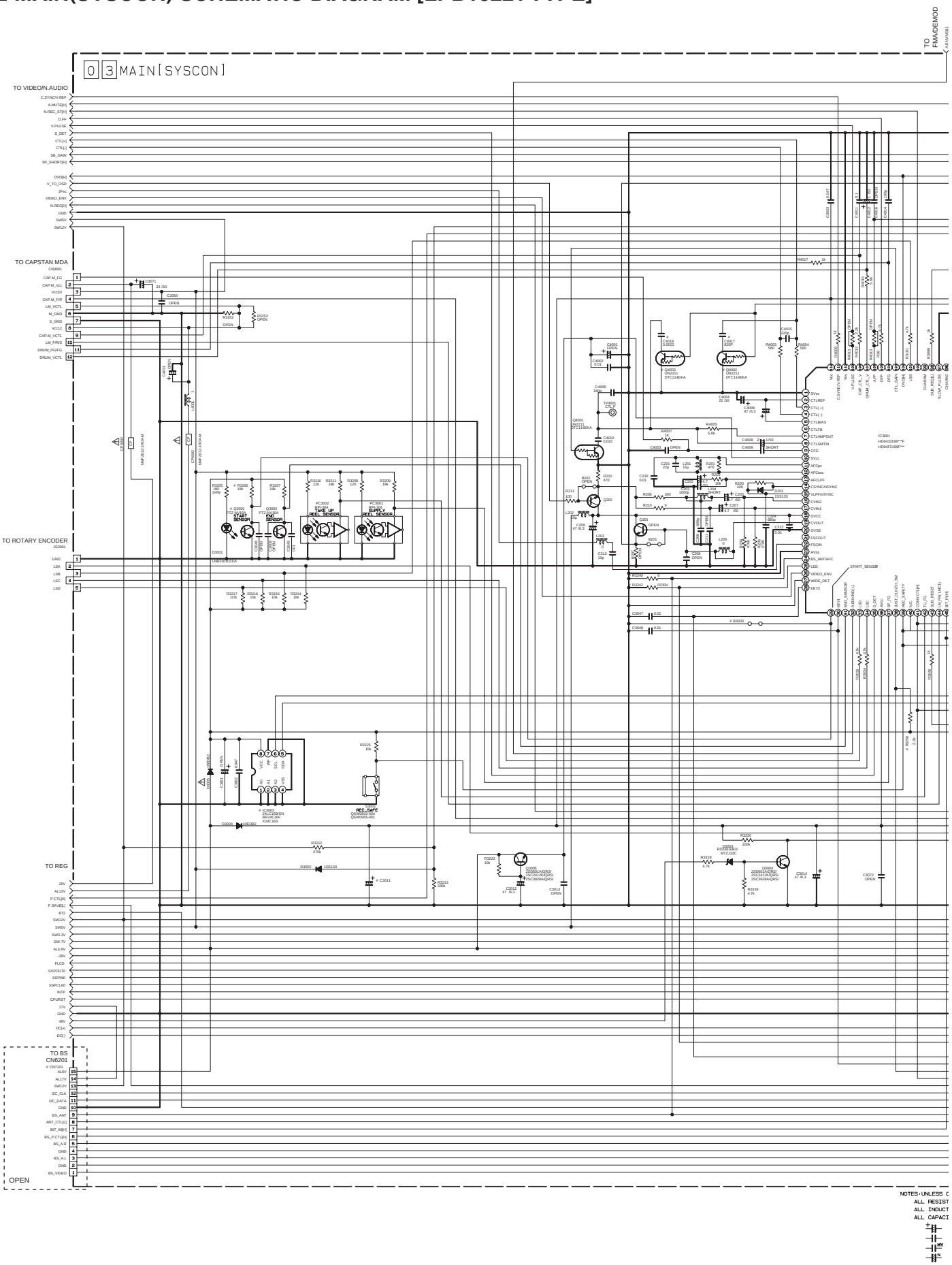


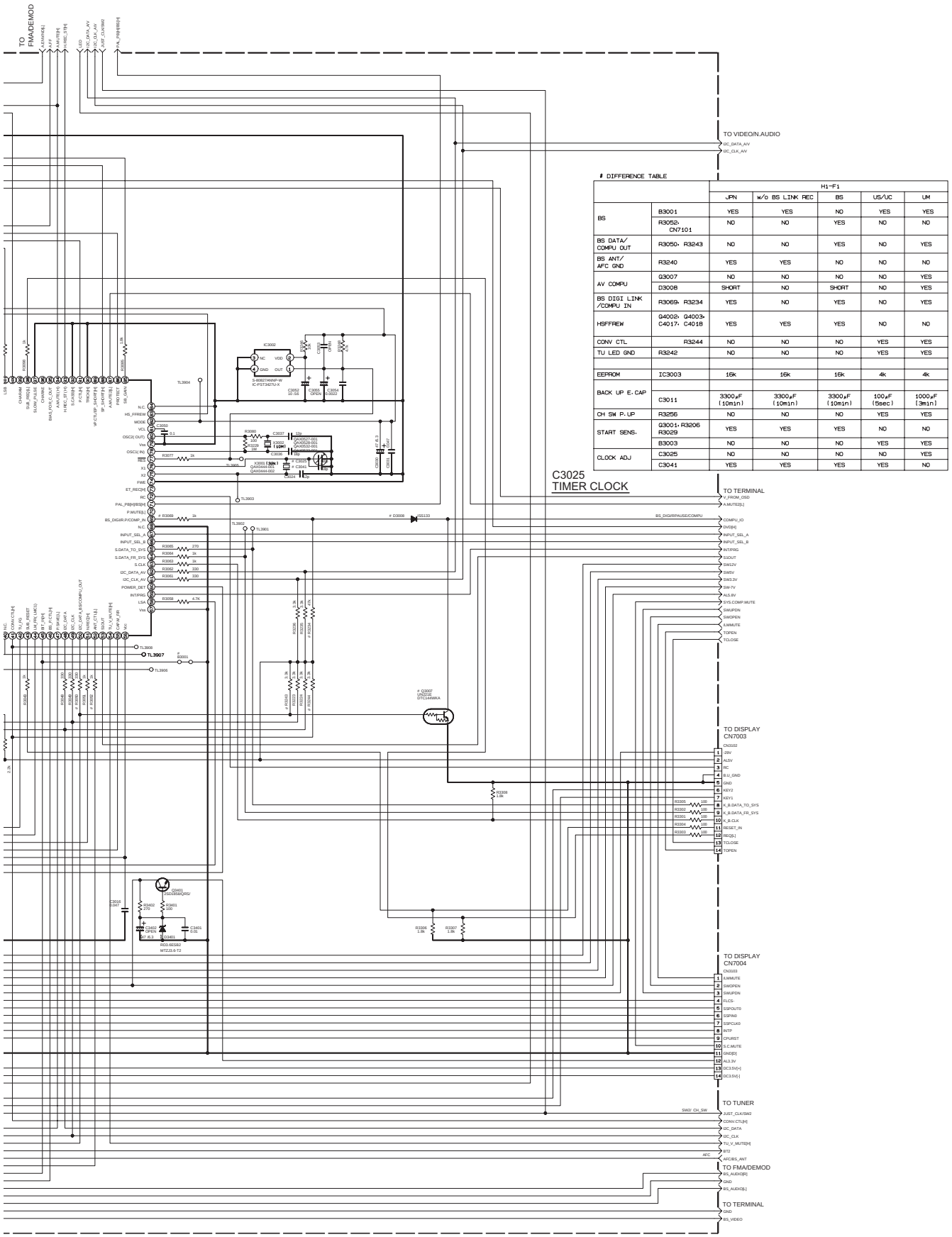
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20373001a_rev0

■ MAIN(SYSCON) SCHEMATIC DIAGRAM [LPB10221 TYPE]





		H1-F1				
		JPN	w/o BS LINK REC	BS	US/UC	UM
BS	B3001	YES	YES	NO	YES	YES
	R3052: CN7101	NO	NO	YES	NO	NO
BS DATA/ COMPU OUT	R3050, R3243	NO	NO	YES	NO	YES
BS ANT/ AFC GND	R3240	YES	YES	NO	NO	NO
AV COMPU	Q3007	NO	NO	NO	NO	YES
	D3008	SHORT	NO	SHORT	NO	YES
BS DIGI LINK /COMPU IN	R3069, R3234	YES	NO	YES	NO	YES
HSFFREW	Q4002, Q4003, C4017, C4018	YES	YES	YES	NO	NO
CONV CTL	R3244	NO	NO	NO	YES	YES
TU LED GND	R3242	NO	NO	NO	YES	YES
EEPROM	IC3003	16k	16k	16k	4k	4k
BACK UP E.CAP	C3011	3300μF (10min)	3300μF (10min)	3300μF (10min)	100μF (5sec)	1000μF (3min)
CH SW P.UP	R3256	NO	NO	NO	YES	YES
START SENS.	Q3001, R3206 R3029	YES	YES	YES	NO	NO
	B3003	NO	NO	NO	YES	YES
CLOCK ADJ	C3025	NO	NO	NO	NO	YES
	C3041	YES	YES	YES	YES	NO

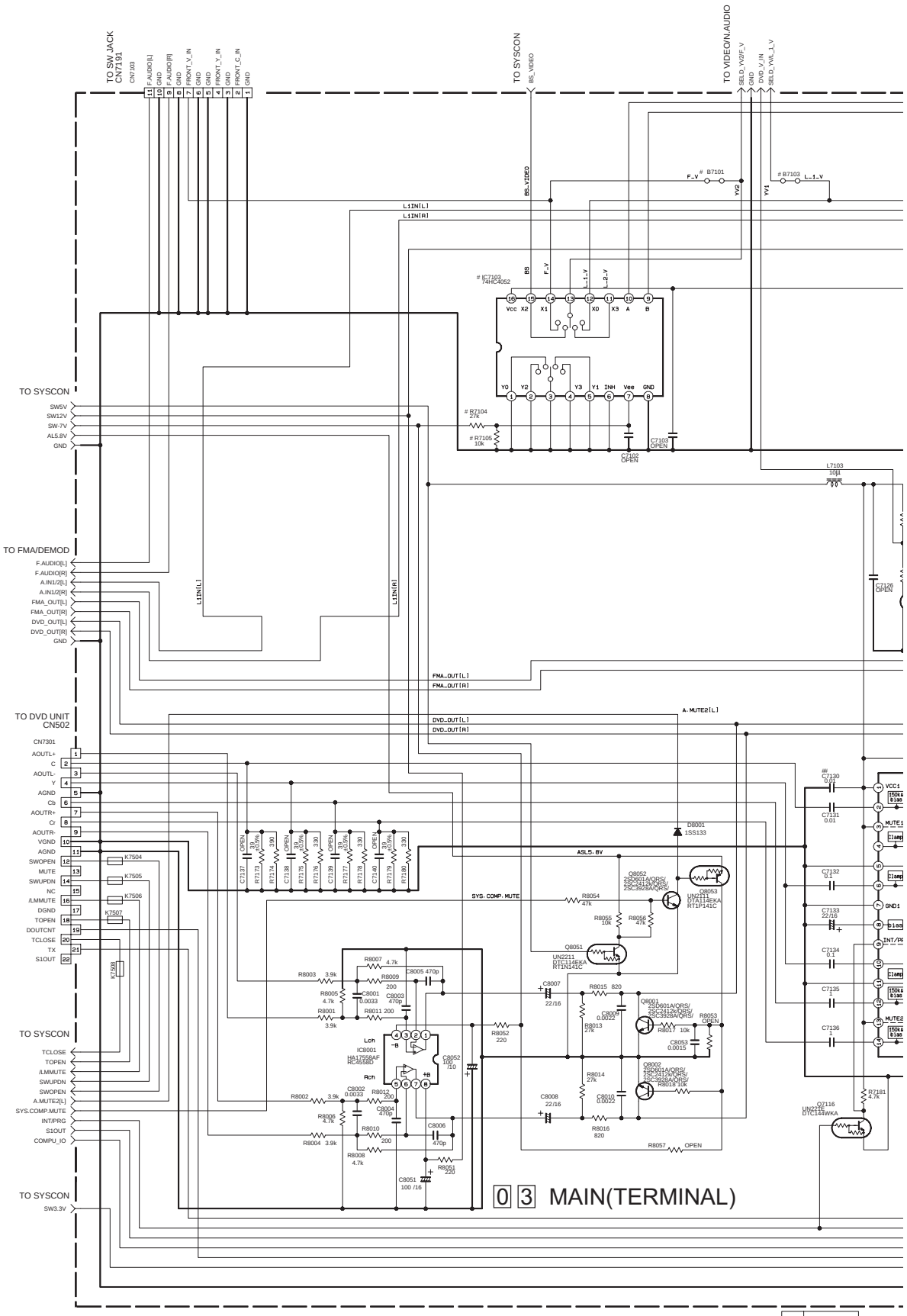
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

:FOR FLASH WRITE

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10566001a_rev0

■ MAIN(TERMINAL) SCHEMATIC DIAGRAM [LPB10221 TYPE]



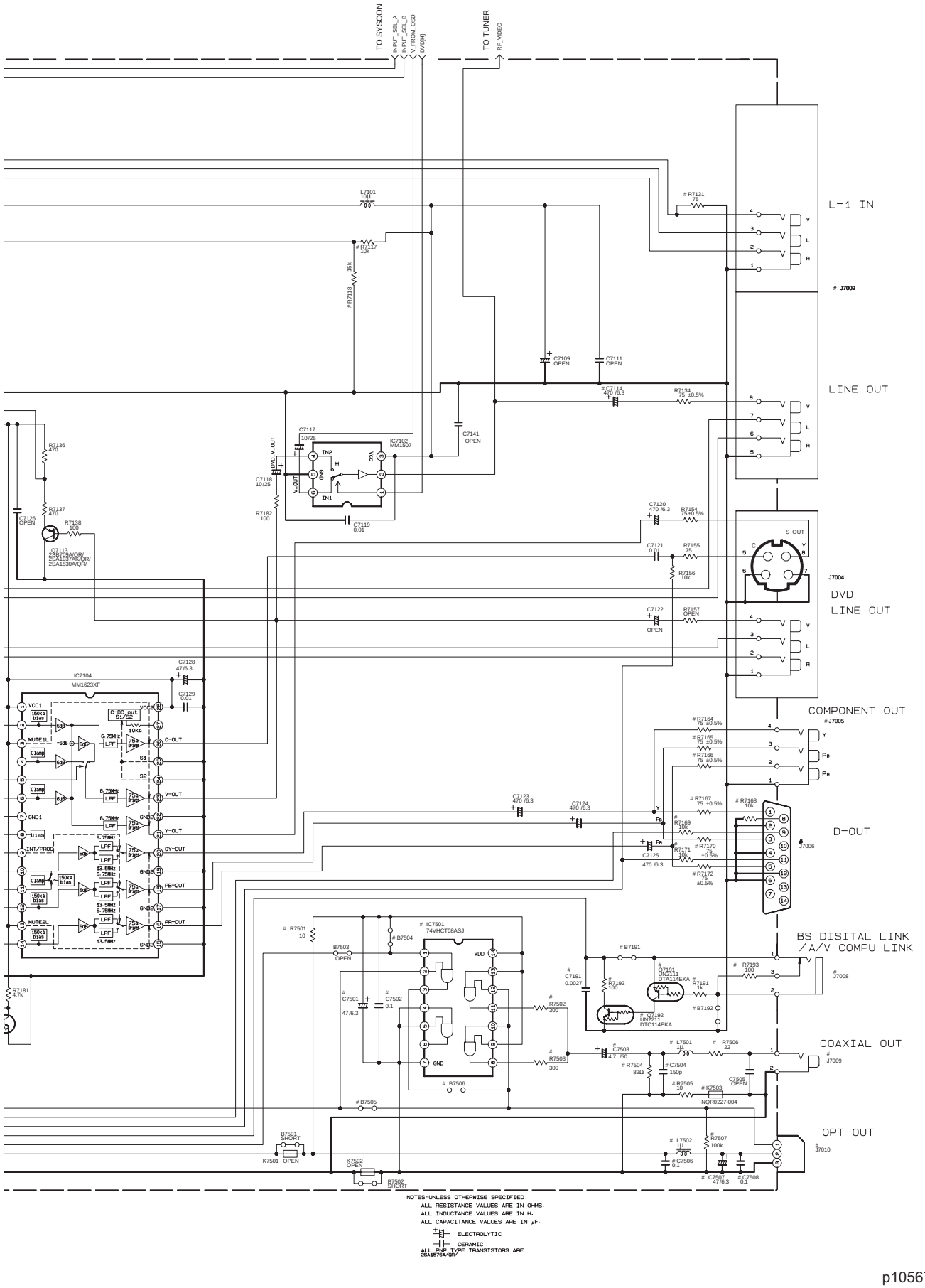
DIFFERENCE TABLE

	B7191 B7192 R7102 R7103 C7191	B7181 B7182	J7008 R7103
BS DIGITAL LINK REC	○	×	○
REMOTE PAUSE	×	○	○

		J7010 L7502 C7506 - C7508 R7507	J7009 IC7501 R7501 - R7506 C7501 - C7504 K7503 - L7501	B7505	B7504 B7506
OPT OUT	COAXIAL OUT				
○	×	○	×	○	×
×	○	×	○	×	○
○	○	○	○	×	○

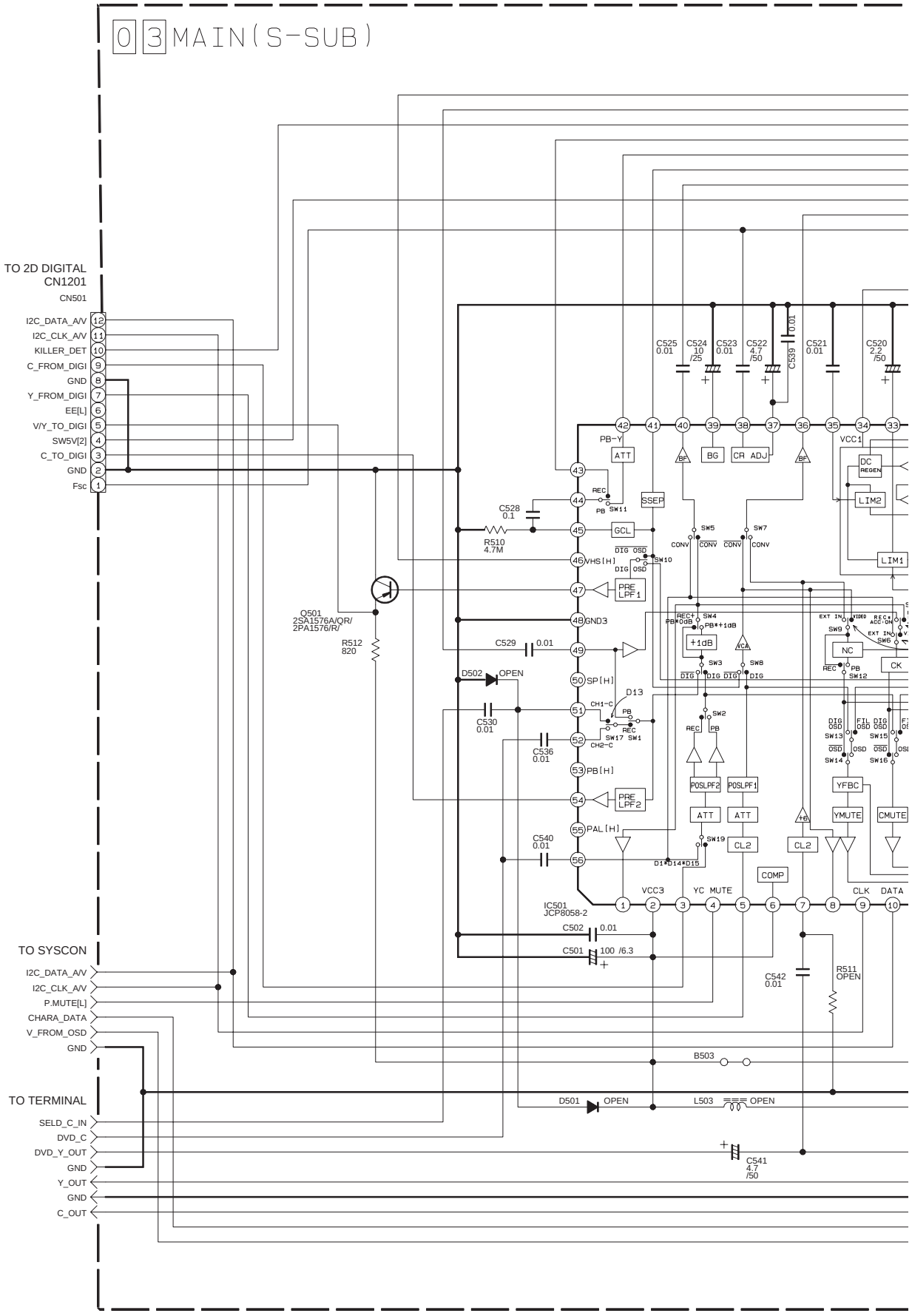
		INPUT FETURE			IC7103	B7101	B7103	R7131	R7104 R7105 R7117 R7118
		FV	L1V	BS					
VHS MODELS	DF3JP	○	○	○	○	×	○	○	
	DV3JP XVC33UM	○	○	×	×	○	○	○	×
	XVC33US	○	×	×	×	○	×	×	×

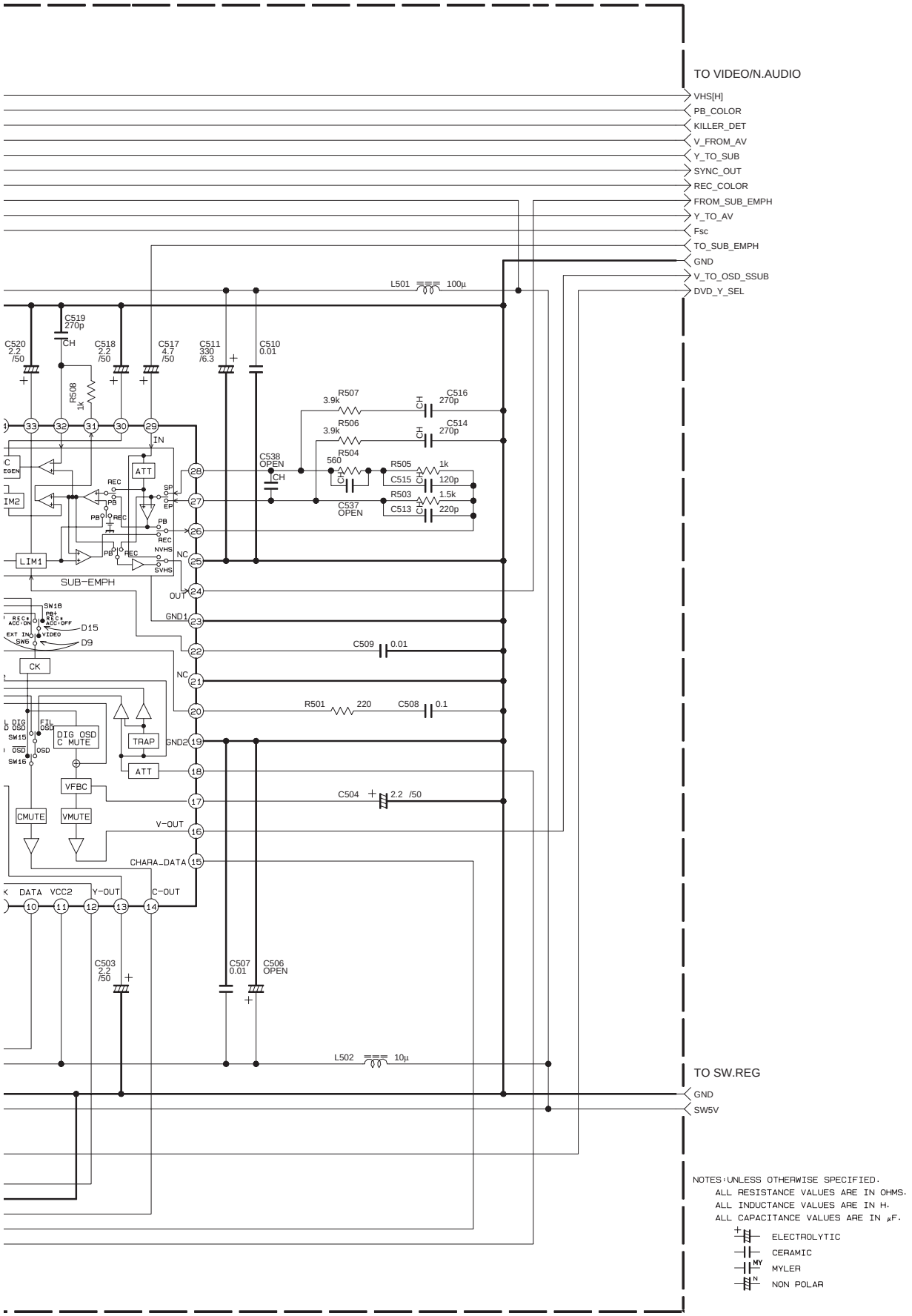
	DVD OUT	
	D1/D2	Y/Cb/Cr
J7006 R7163 R7164 R7169 R7170 R7171 R7172	J7005	R7164 R7165 R7166
DDM	○	×
US/UM	×	○



p10567001a_rev0

■ MAIN(S-SUB) SCHEMATIC DIAGRAM [HR-XVS44UC, HR-XVS44UJ, HR-XVS44US]

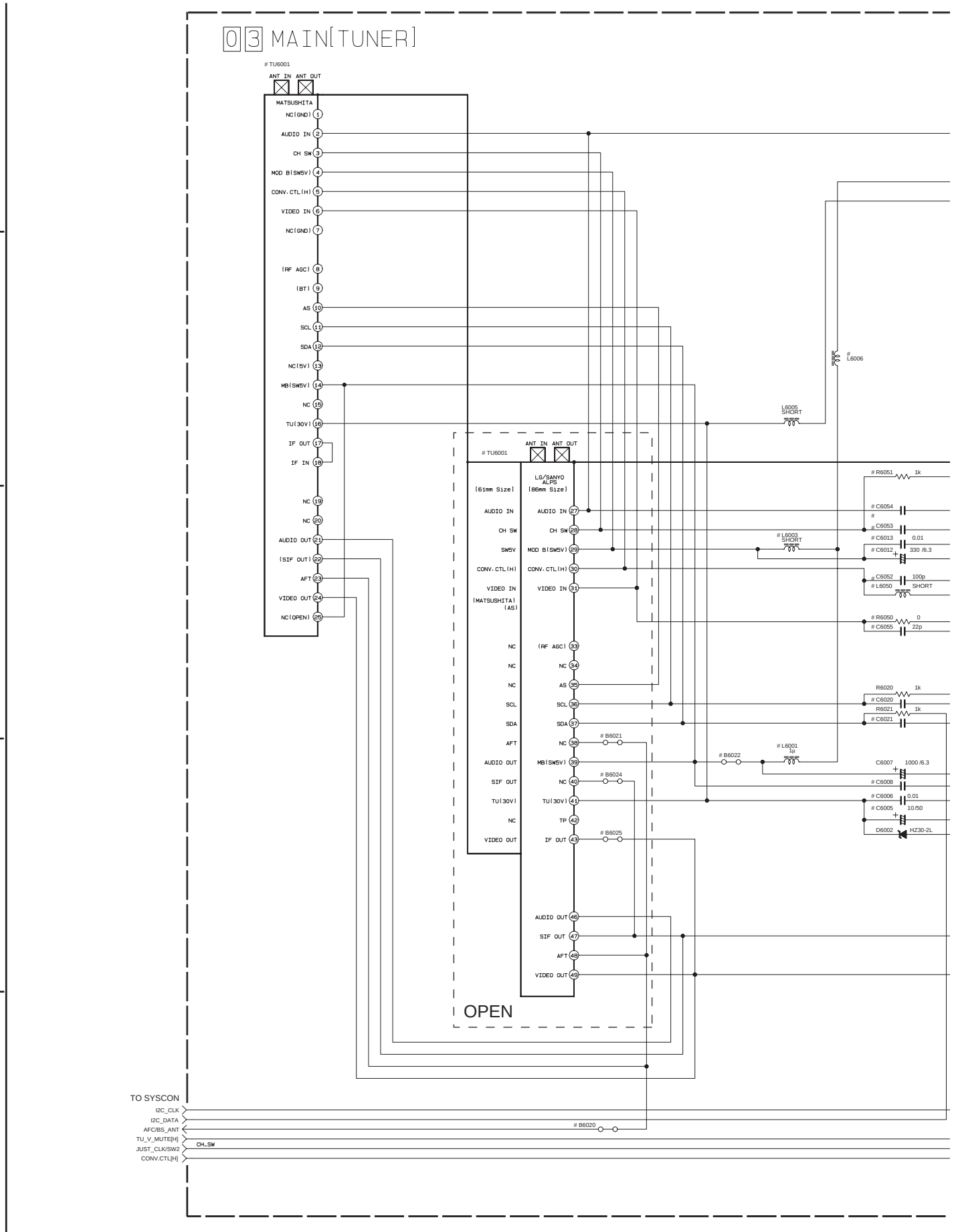


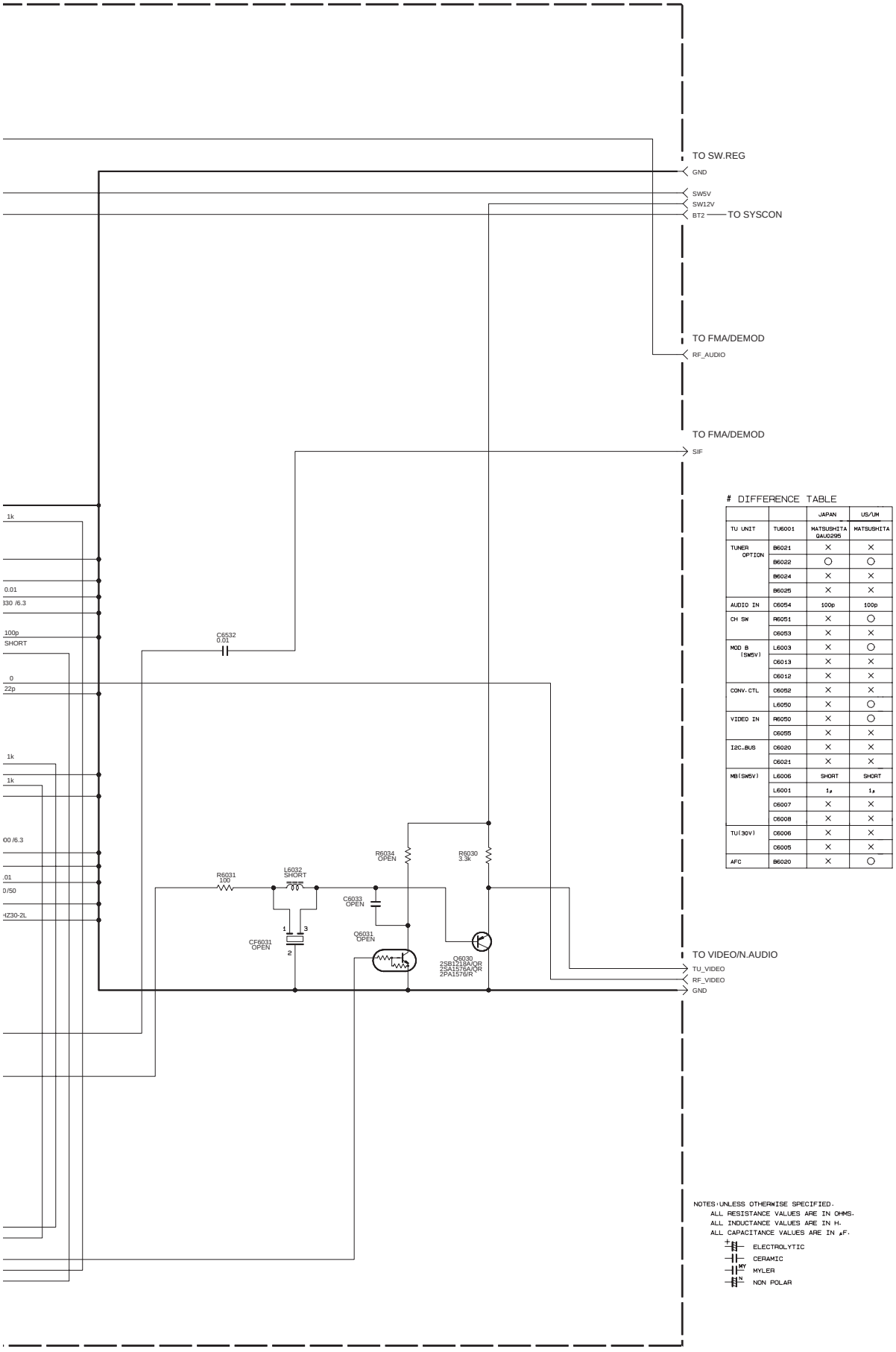


p20345001a_rev0

D E F G

■ MAIN(TUNER) SCHEMATIC DIAGRAM



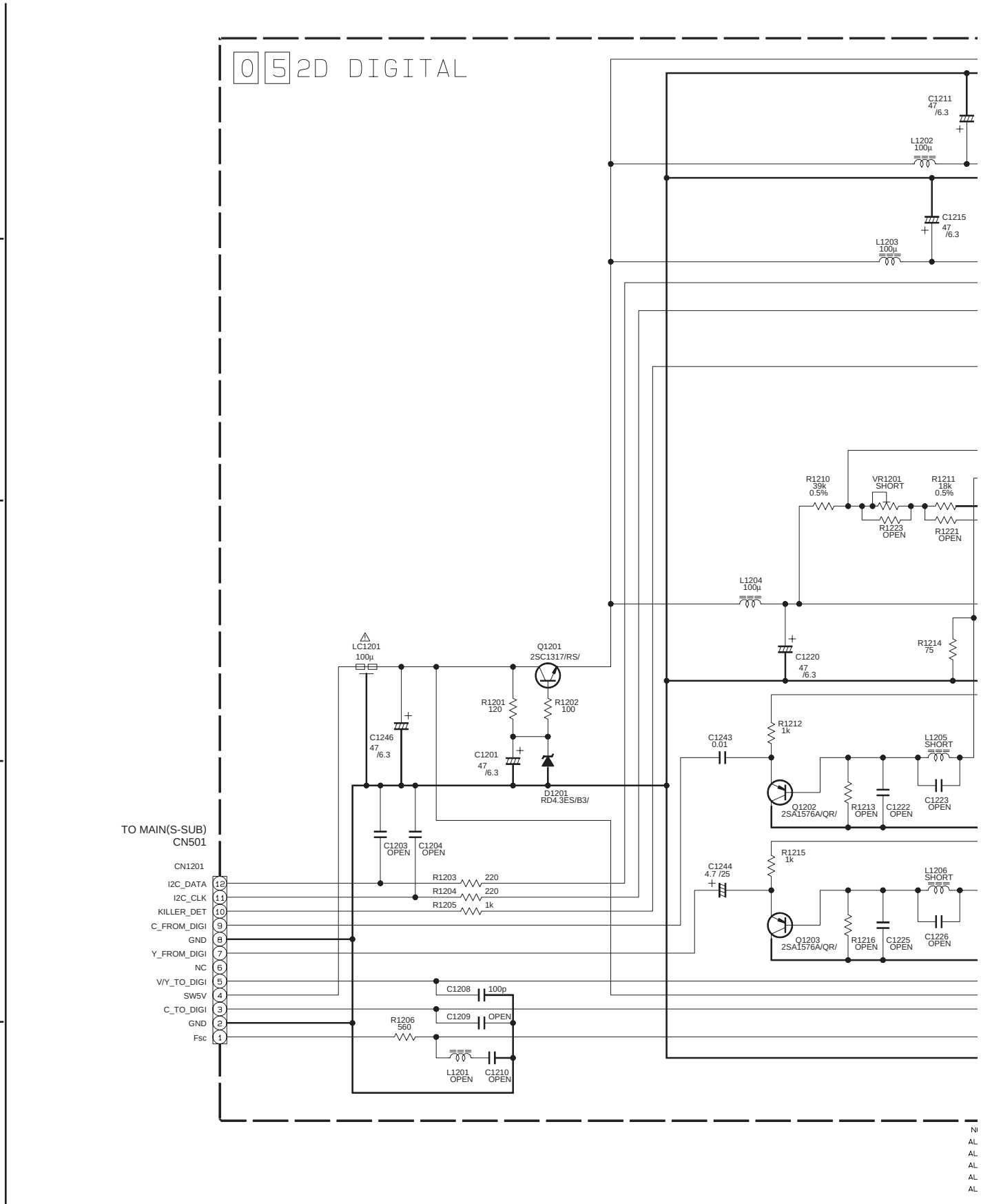


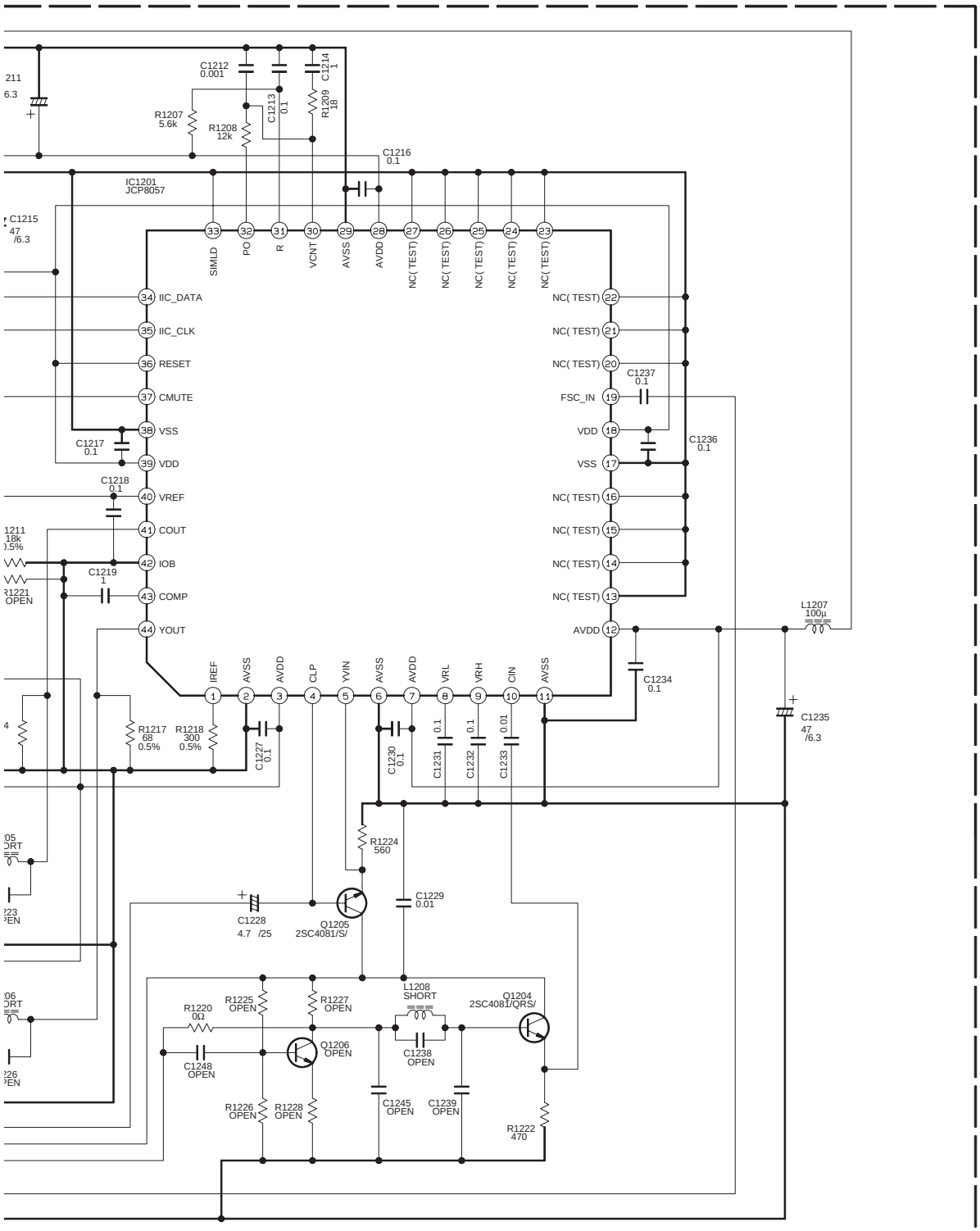
DIFFERENCE TABLE

		JAPAN	US/UM
TU UNIT	TU6001	MATSUSHITA QAU0295	MATSUSHITA
TUNER OPTION	B6021	×	×
	B6022	○	○
	B6024	×	×
	B6025	×	×
AUDIO IN	C6054	100p	100p
CH SW	R6051	×	○
	C6053	×	×
MOD B (5V)	L6003	×	○
	C6013	×	×
	C6012	×	×
CONV.CTL	C6052	×	×
	L6050	×	○
VIDEO IN	R6050	×	○
	C6055	×	×
I2C_BUS	C6020	×	×
	C6021	×	×
MB(5V)	L6006	SHORT	SHORT
	L6001	1μ	1μ
	C6007	×	×
	C6008	×	×
TU(30V)	C6006	×	×
	C6005	×	×
AFC	B6020	×	○

p10543001a_rev0

■ 2D DIGITAL SCHEMATIC DIAGRAM [HR-XVS44UC, HR-XVS44UJ, HR-XVS44US]



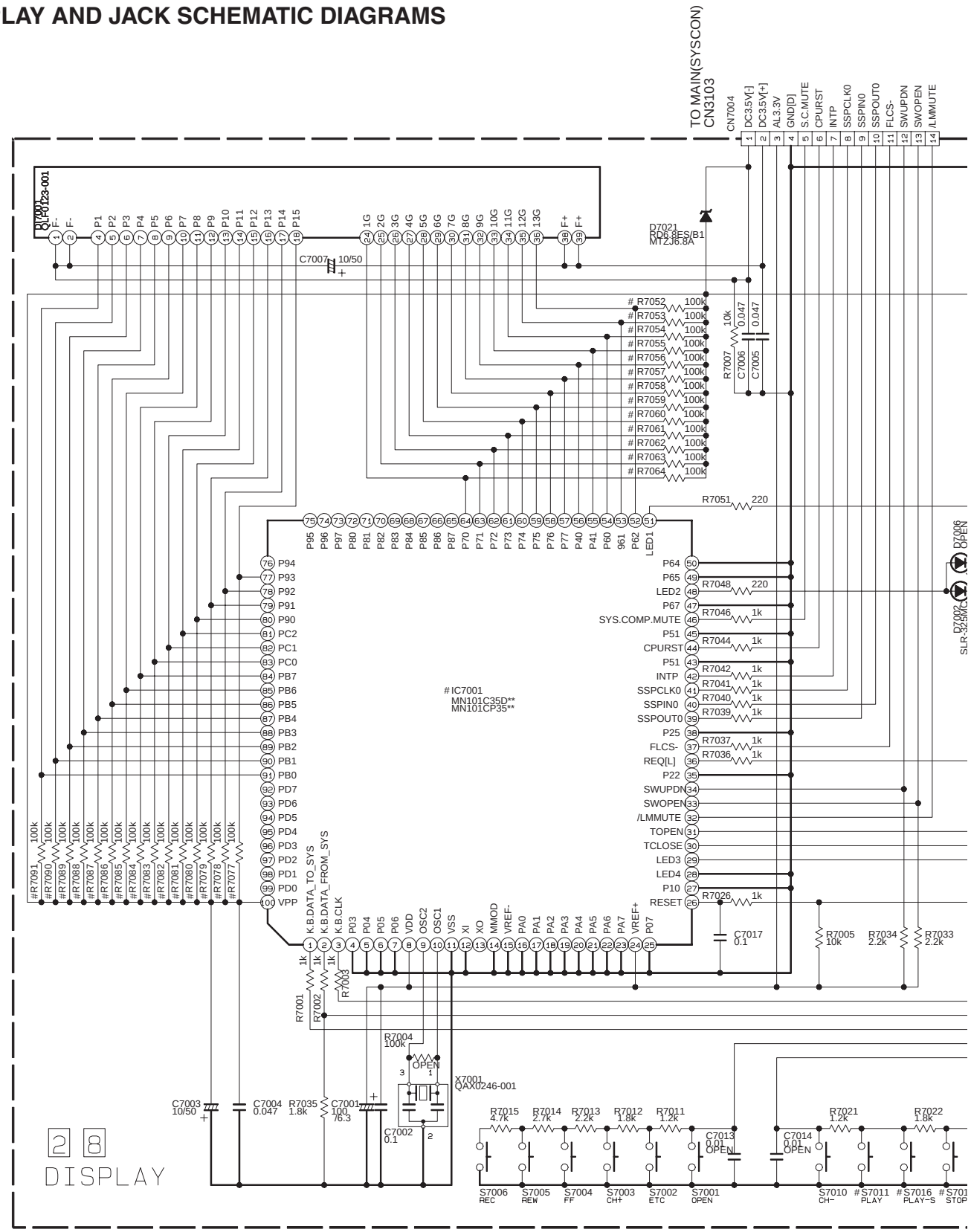


NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/. 2PC4081/R/
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/. 2PA1576/R/

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20363001a_rev0

■ DISPLAY AND JACK SCHEMATIC DIAGRAMS



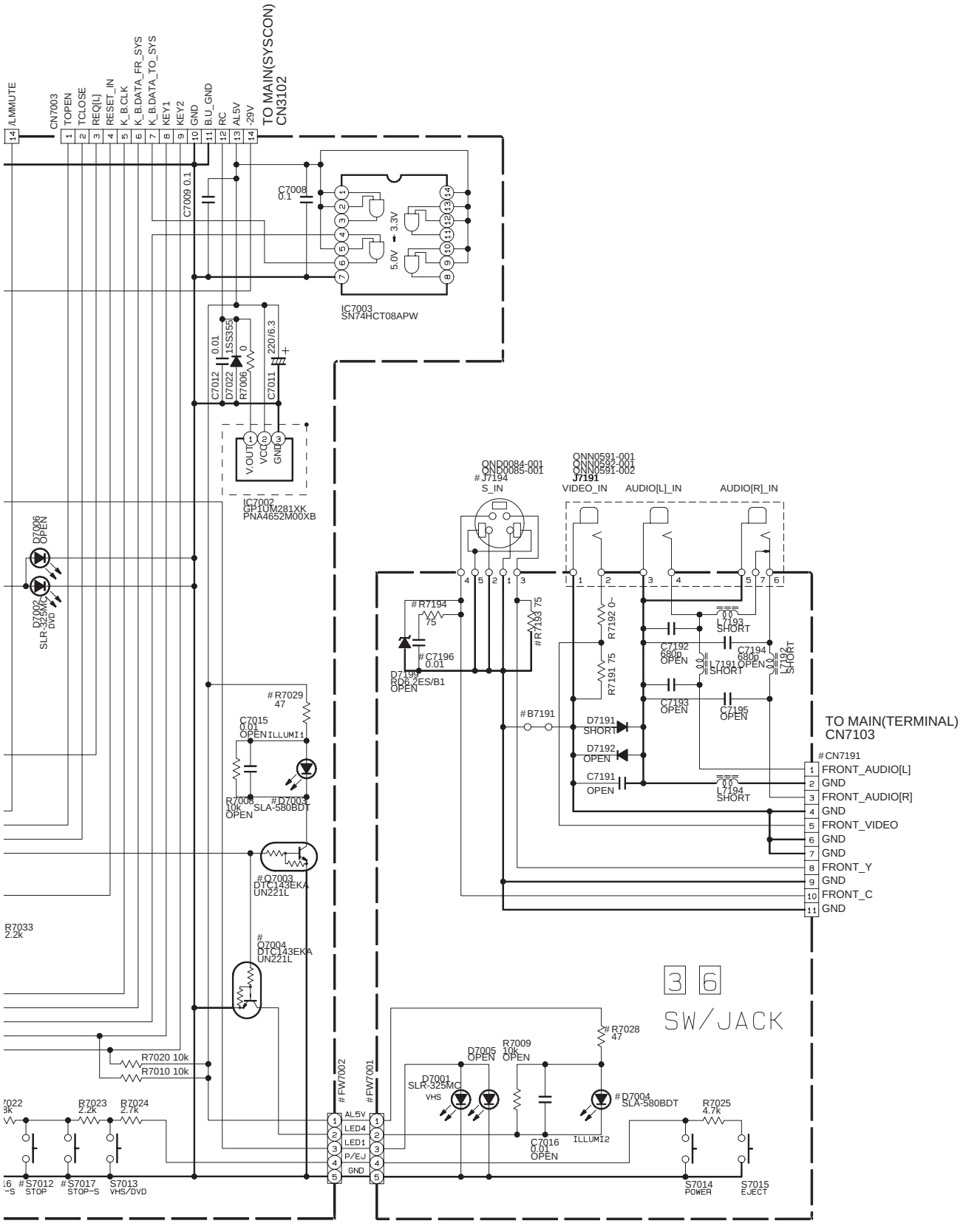
DIFFERENCE TABLE

FRONT	S7011 S7012	S7016 S7017
BASIC	YES	NO
STEP-UP	NO	YES

ILLUMI LED	D7003 D7004	Q7003, Q7004 R7028, R7029	FW7001 FW7002
BLU	SLA-580BDT	YES	1-5
GRN	SLA-580ECT	YES	1-5
BLU-GRN	SLA-570TCT	YES	1-5
NO	NO	NO	3-5

	J7194, B7191 R7193, R7194	CN7191	C7196
Hi-Fi	NO	1-7	NO
JPN S-VHS	YES	1-11	0.01
OTHER	YES	1-11	SHORT

IC7001	R7052-R7064 R7077-R7091
MN101C35D**	NO
MN101CP35**	YES

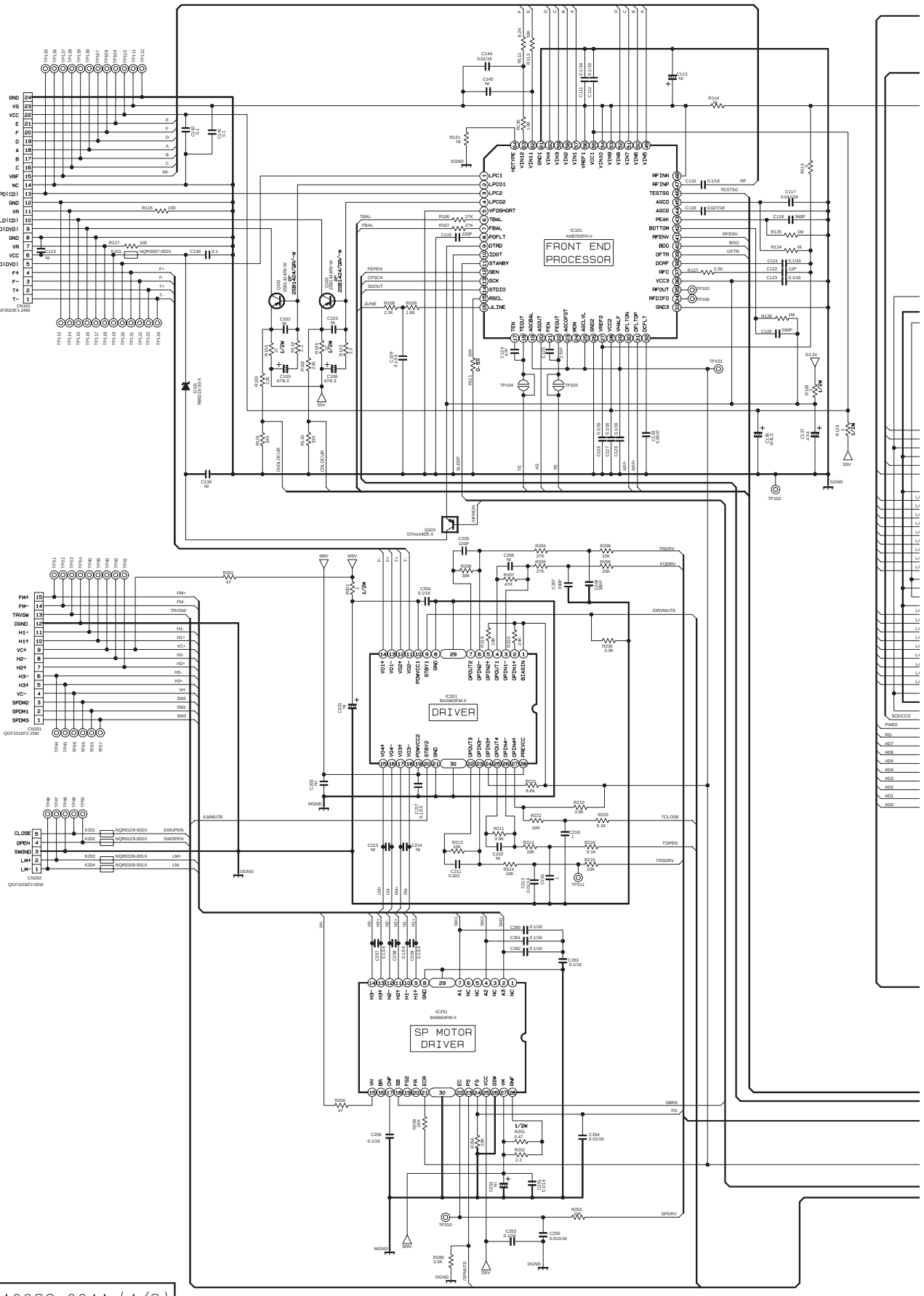


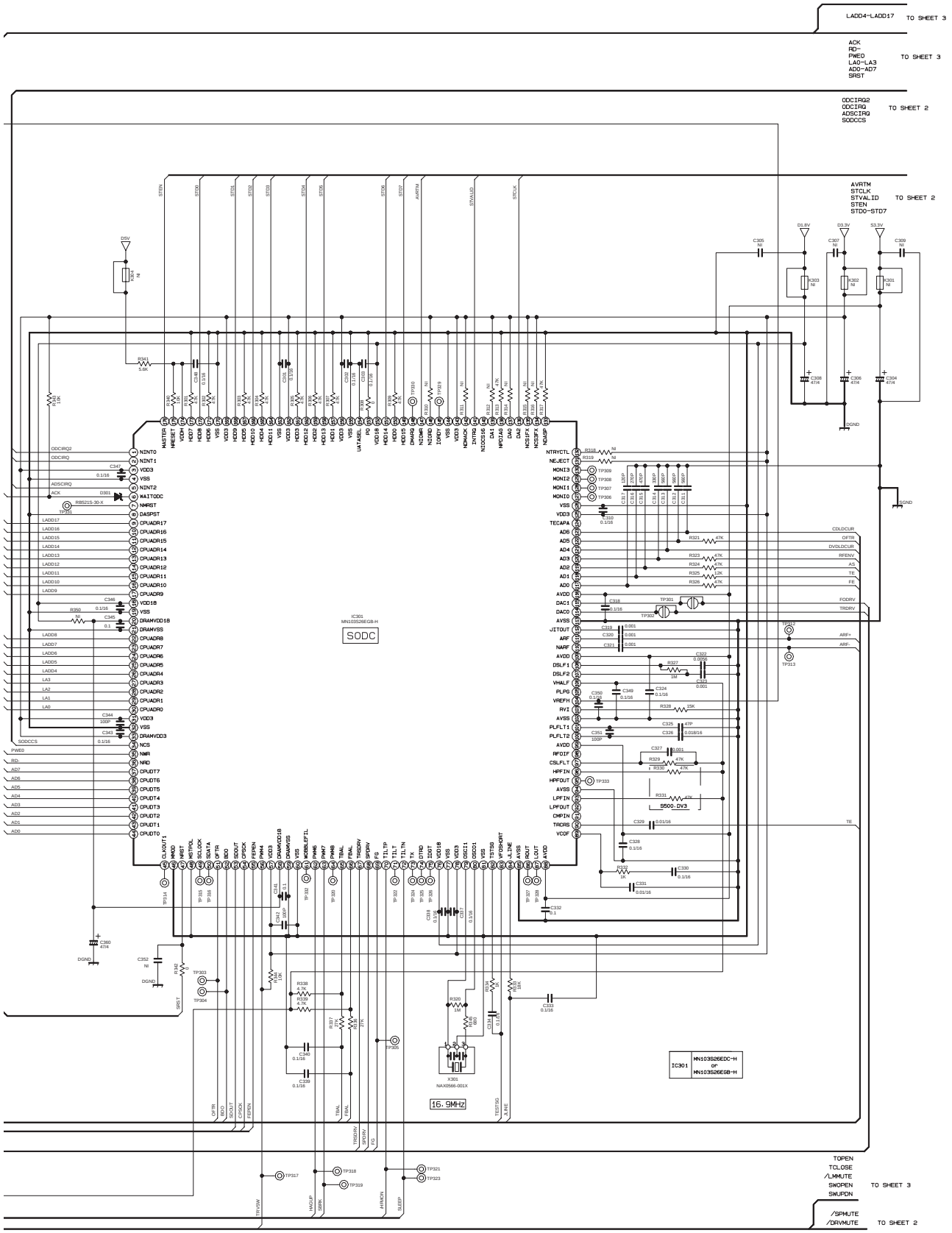
NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MY MYLER
N NON POLAR

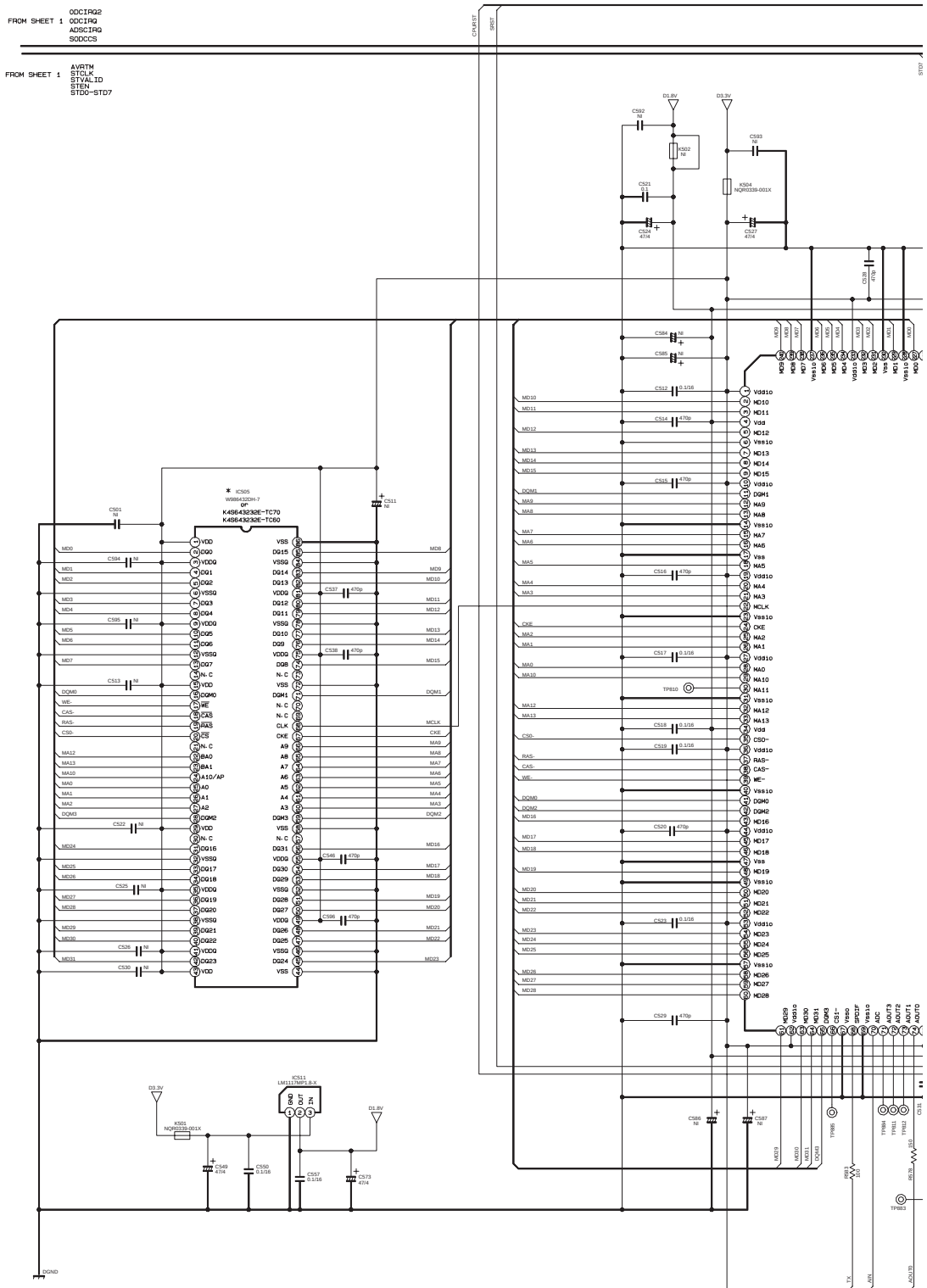
p20338001a_rev0

■ DVD SERVO CONTROL SCHEMATIC DIAGRAM



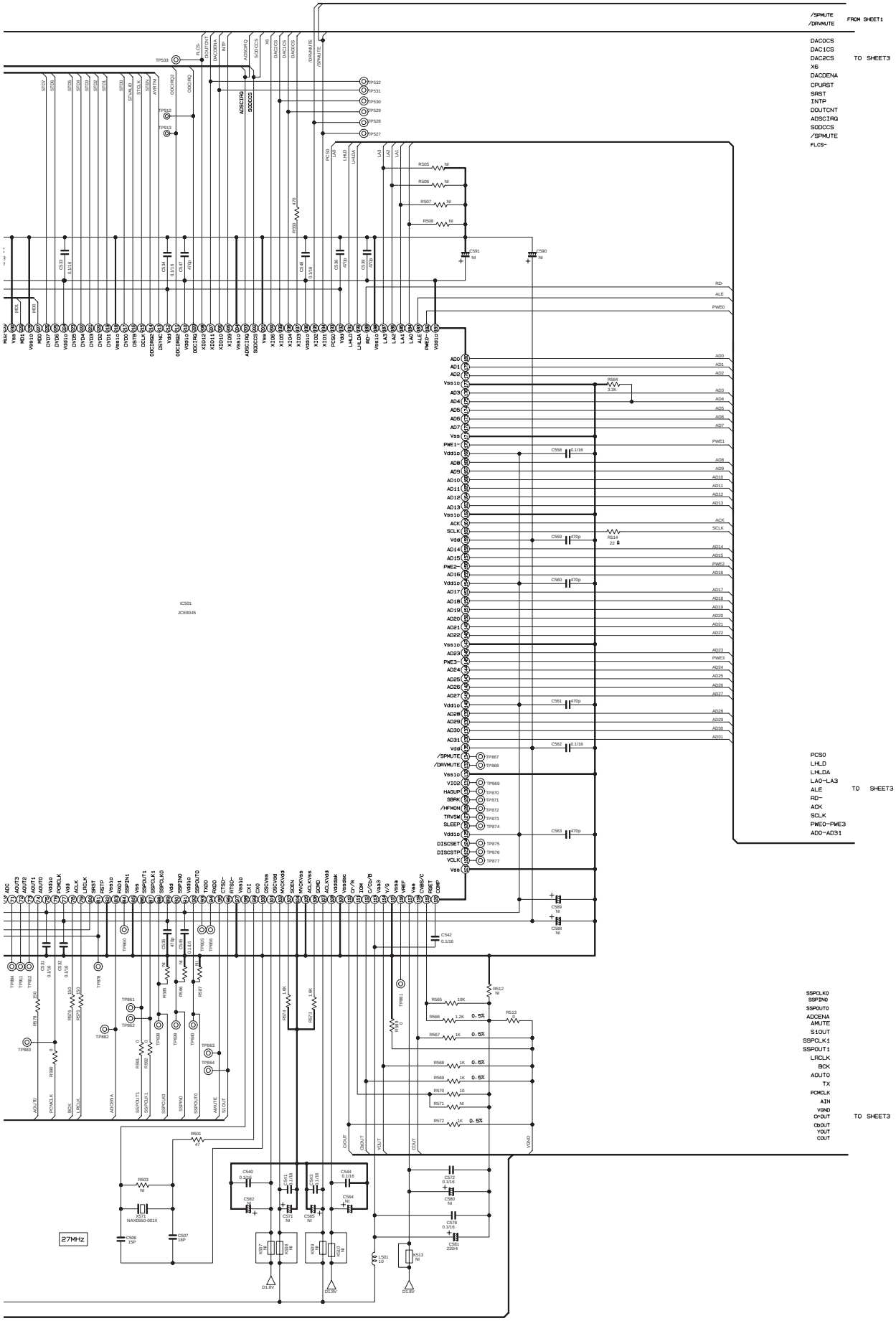

LADD4-LADD17
TO SHEET 3
ACK
RD-
PWE0
LA0-LA3
AD0-AD7
SRST
TO SHEET 3
ODCIRQ2
ODCIRQ
ADSCIRQ
SODCCS
TO SHEET 2
AVRTM
STCLK
STVALID
STEN
STD0-STD7
TO SHEET 2
SODC
IC301
MN103S26EGB-H
TOPEN
TCLOSE
/LMMUTE
SWOPEN
SWUPDN
TO SHEET 3
/SPMUTE
/DRVMUTE
TO SHEET 2
16.9MHz
X301
NAX2566-001X
IC301
MN103S26EDC-H
or
MN103S26EGB-H
S500-DV3
e10048001b_rev0
D
E
F
G
2-34

DVD AV DECODER SCHEMATIC DIAGRAM

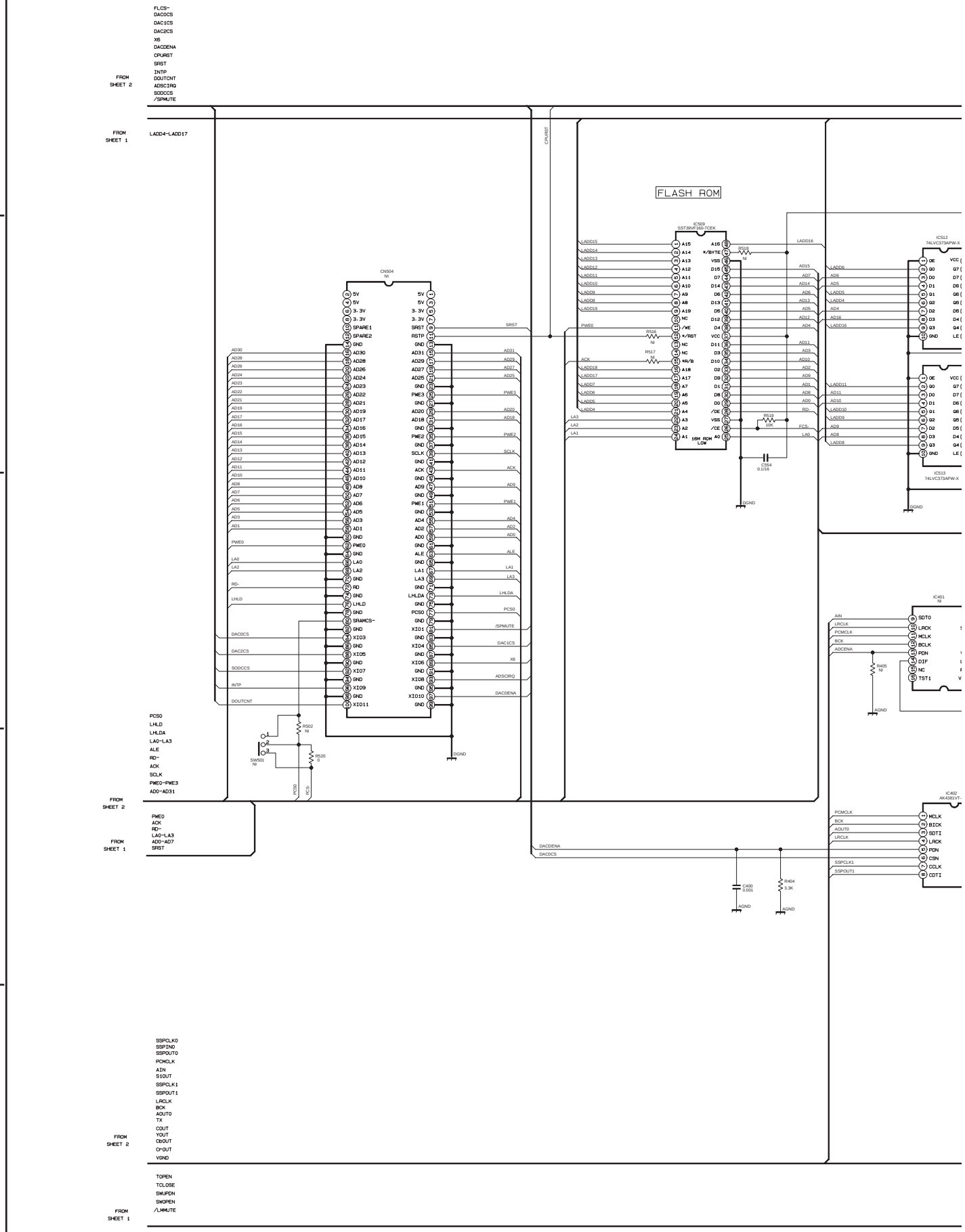


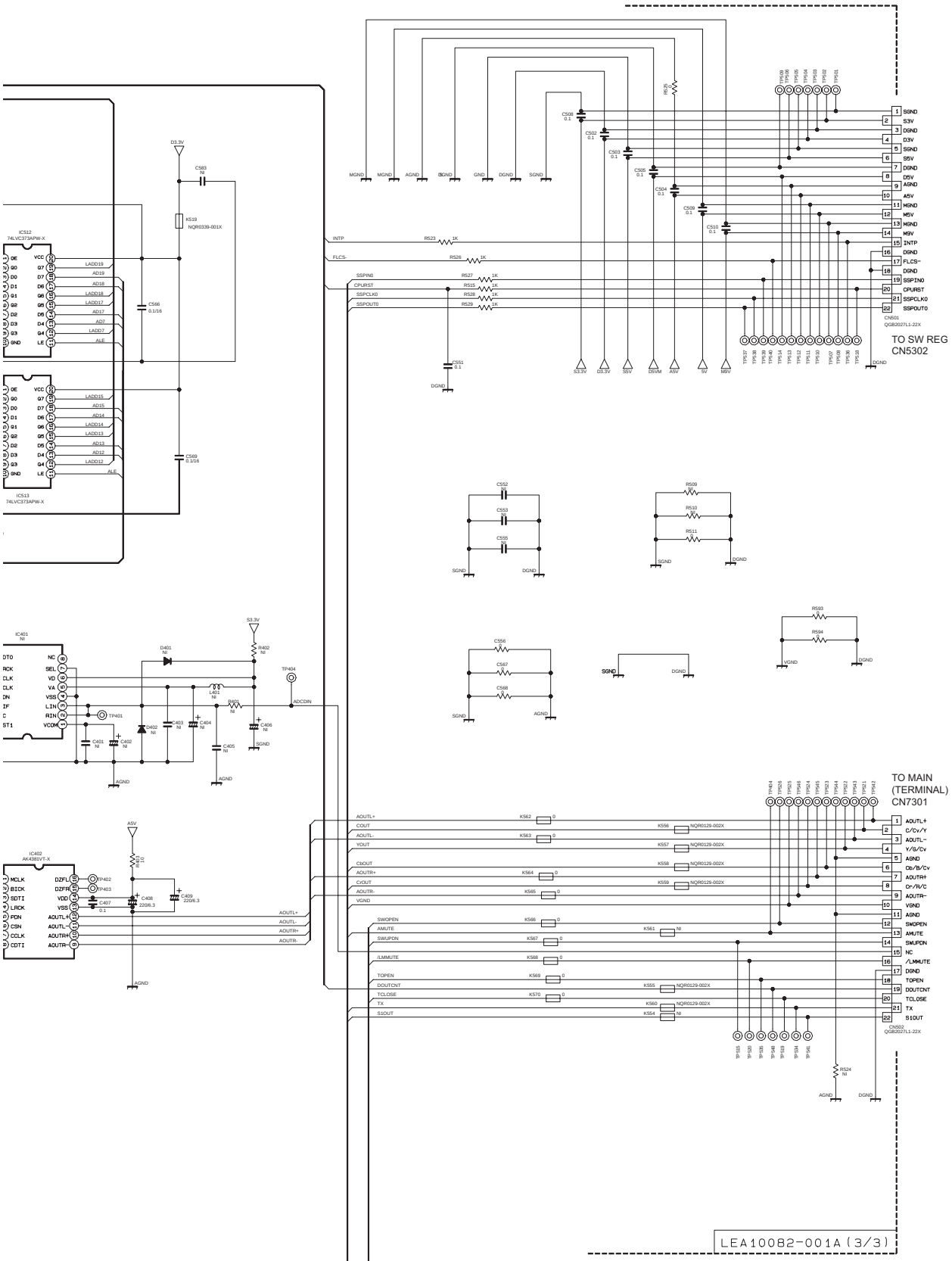
	EMU-DE5-1	EMU-DE5-11	EMU-DE5-21
IC501	JCE8045 or NDV8601VWA-BE	NDV8604VWA or NDV8611VWA	JCE8045 or NDV8601VWA-BE

LEA10082-001A (2/3)


/SPMUTE
/DRVMUTE
FROM SHEET1
DAC0CS
DAC1CS
DAC2CS
TO SHEET3
X6
DACDENA
CPURST
SRST
INTP
DOUTCNT
ADSCIRQ
SODCCS
/SPMUTE
FLCS-
IC501
JCE8045
PCS0
LHLD
LHLDA
LA0~LA3
ALE
TO SHEET3
RD-
ACK
SCLK
PWE0~PWE3
AD0~AD31
SSPCLK0
SSPIN0
SSPOUT0
ADCENA
AMUTE
S1OUT
SSPCLK1
SSPOUT1
LRCLK
BCK
ADJT0
TX
PCMCLK
AIN
VGND
CrOUT
TO SHEET3
CbOUT
YOUT
COUT
27MHz

DVD FLASH ROM SCHEMATIC DIAGRAM

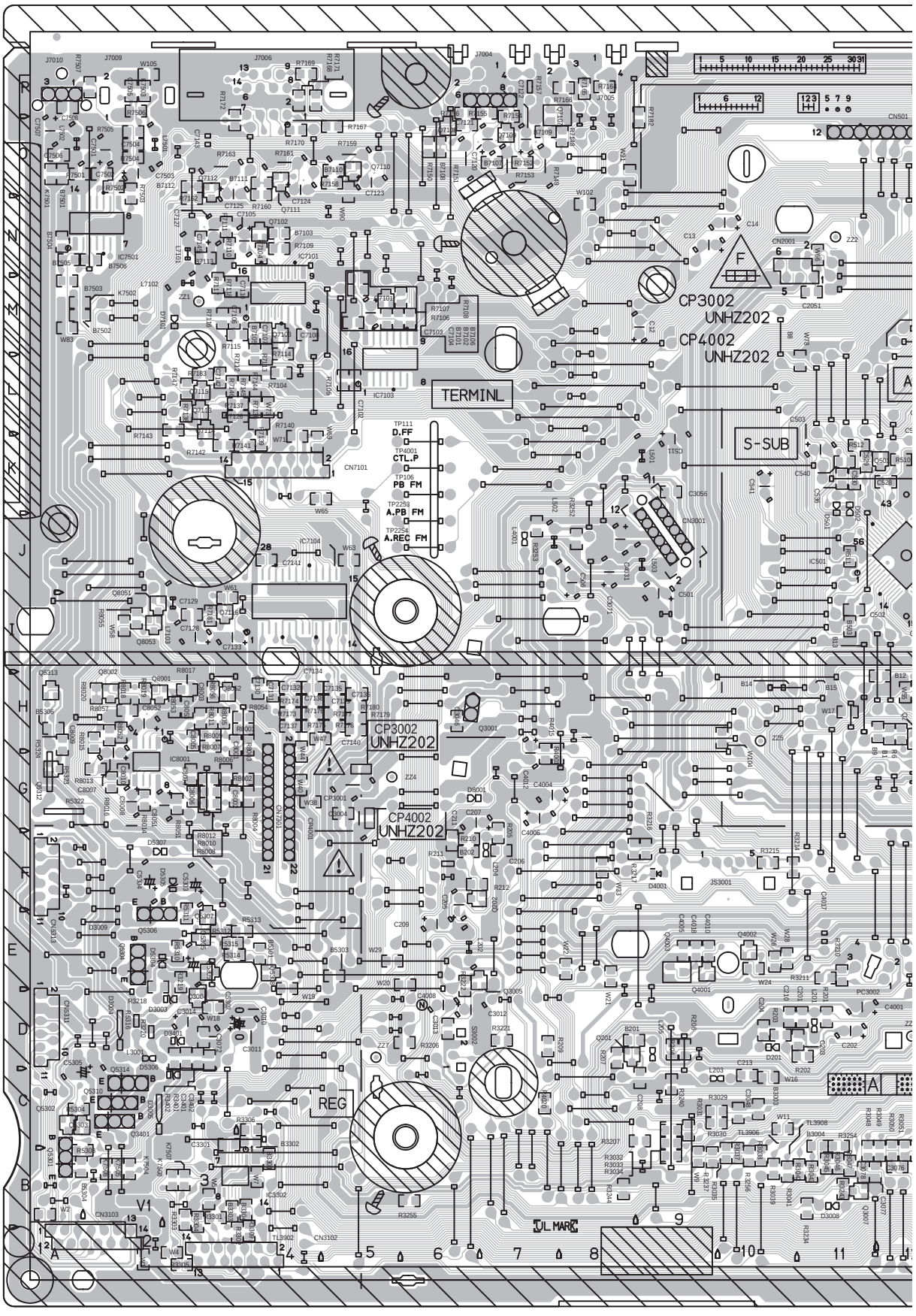


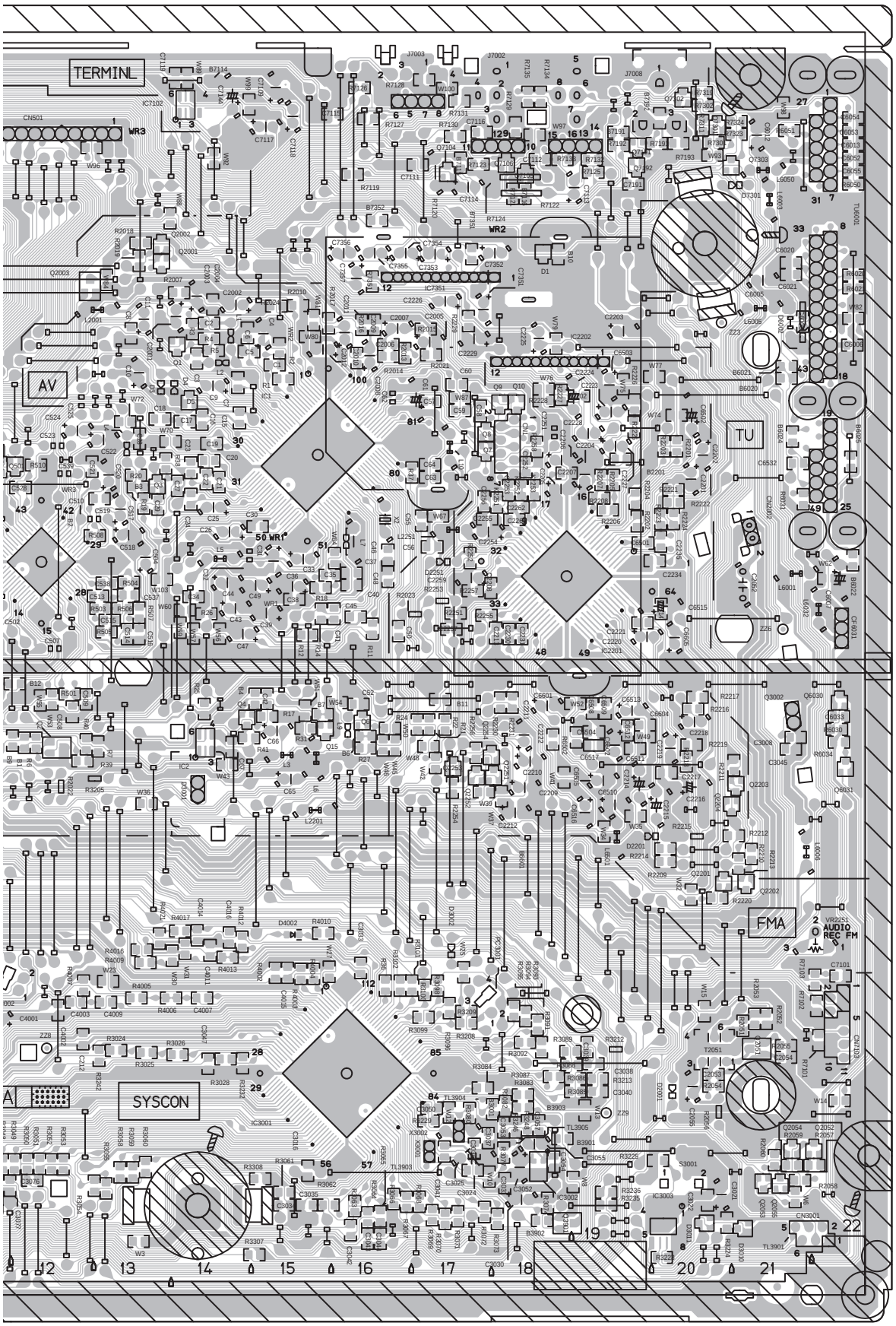


e10048001b_rev0

■ MAIN CIRCUIT BOARD

<03> MAIN
LPB10207-001C




TERMINL
AV
SYSCON
FMA
AUDIO REC FM
WR1
WR2
WR3

COMPONENT PARTS LOCATION GUIDE <MAIN> LPB10207-001C

REF.NO.	LOCATION
CAPACITOR	
C1	B C 15L
C2	B C 14M
C3	B C 14M
C4	A D 15M
C5	B C 14M
C6	B C 14M
C7	B C 14L
C8	B C 13M
C9	A D 14L
C10	A D 13L
C11	A D 13M
C12	A D 9M
C13	A D 9N
C14	A D 10N
C15	B C 14L
C16	B C 14L
C17	B C 14L
C18	B C 13L
C19	B C 14K
C20	B C 14K
C21	B C 14K
C22	B C 14K
C23	B C 14K
C24	B C 14K
C25	A D 14K
C26	A D 14J
C27	B C 14K
C28	B C 13L
C29	B C 13K
C30	B C 15J
C31	A D 15J
C32	A D 14J
C33	A D 15J
C34	B C 14J
C35	B C 15J
C36	A D 15J
C37	B C 16J
C38	B C 15J
C39	A D 15I
C40	B C 16J
C41	B C 16I
C42	B C 15H
C43	A D 14I
C44	A D 14J
C45	B C 16I
C46	B C 16J
C47	A D 14I
C48	B C 16J
C49	A D 15J
C50	B C 16I
C52	B C 16H
C55	B C 17J
C56	B C 17J
C57	B C 17L
C58	B C 17L
C59	B C 17L
C60	B C 17L
C61	A D 17L
C62	A D 16L
C63	B C 17K
C64	B C 17K
C65	A D 15G
C66	A D 15H
C67	B C 14H
C201	B C 11D
C202	A D 11D
C203	B C 11D
C204	B C 10D
C205	A D 6E
C206	B C 7F
C207	A D 7G
C208	B C 9C
C209	A D 6E
C210	B C 10D
C211	B C 6F
C212	B C 12D
C213	B C 10C
C501	A D 9I
C502	B C 11I
C503	A D 11K
C504	A D 13J
C506	A D 8J
C507	A D 12I
C508	B C 12H
C509	B C 14H
C510	A D 12K
C511	A D 9K
C513	B C 13J
C514	B C 13I
C515	B C 13I
C516	B C 13I
C517	A D 13K
C518	A D 13J
C519	B C 13K
C520	A D 13K
C521	B C 13K
C522	A D 13K
C523	A D 12K
C524	A D 12L
C525	A D 12L
C528	B C 12K
C529	B C 11K
C530	B C 11K
C536	B C 11K
C537	B C 13J
C538	B C 13J
C539	A D 12K
C540	B C 11K
C541	A D 10K
C2001	A D 14M
C2002	A D 14M
C2003	A D 14M
C2004	B C 14M
C2005	A D 17M
C2006	B C 16M
C2007	A D 16M
C2008	A D 16L
C2009	B C 16M
C2010	B C 16M
C2011	A D 16M
C2012	A D 15M
C2051	B C 11M
C2052	A D 21J
C2053	B C 20D
C2054	B C 21D
C2055	A D 20C
C2201	A D 20K
C2202	A D 20K
C2203	A D 19M
C2204	A D 19K
C2205	A D 18K
C2206	A D 18K
C2207	B C 18K
C2208	B C 17J
C2209	A D 18G
C2210	A D 18G
C2211	A D 18H
C2212	A D 18G
C2213	B C 18I
C2214	A D 19G
C2215	A D 20G
C2216	A D 20G
C2217	B C 20G
C2218	A D 20H
C2219	A D 20H
C2220	A D 19I
C2221	B C 19I
C2222	B C 18H
C2223	A D 19L
C2224	A D 19L
C2225	A D 18M
C2226	A D 17M
C2227	A D 19K
C2228	A D 19L
C2229	A D 17M
C2230	B C 18I
C2231	B C 18I
C2234	B C 20J
C2235	B C 20J
C2251	A D 18K
C2252	B C 18K
C2253	B C 18K
C2254	A D 18J
C2255	B C 17K
C2256	B C 17K
C2257	B C 17I
C2259	A D 17J
C2260	B C 18J
C2262	B C 18K
C3004	B C 5G
C3008	B C 21H
C3010	A D 3D
C3011	A D 3D
C3012	A D 6D
C3013	B C 6D
C3014	A D 3D
C3016	B C 15B
C3021	A D 20B
C3022	B C 20B
C3024	B C 17B
C3025	A D 17C
C3030	A D 18B
C3031	B C 16I
C3033	B C 16E
C3034	B C 15B
C3035	B C 15B
C3036	B C 17C
C3037	B C 17C
C3038	B C 19D
C3039	B C 19D
C3040	B C 19C
C3041	B C 17C
C3042	B C 16B
C3043	B C 16B
C3044	B C 16B
C3045	B C 21H
C3046	B C 6H
C3047	B C 14D
C3048	B C 10C
C3049	B C 10C
C3050	B C 17C
C3052	A D 18C
C3053	B C 18C
C3054	B C 18B
C3055	A D 18C
C3056	B C 9K
C3057	B C 18C
C3071	A D 8J
C3072	B C 3D
C3073	B C 3H
C3074	B C 3G
C3075	B C 3G
C3076	B C 12B
C3077	B C 11B
C3078	B C 11B
C3301	B C 3C
C3401	B C 3D
C3402	B C 3D
C4001	A D 11D
C4002	B C 12D
C4003	B C 12D
C4004	A D 8G
C4005	B C 9E
C4006	A D 7G
C4007	B C 14E
C4008	A D 6D
C4009	B C 13D
C4010	B C 9E
C4011	B C 14E
C4012	A D 13L
C4013	B C 20D
C4014	B C 20D
C4015	B C 15E
C4016	B C 14E
C4017	A D 11E
C4018	B C 9E
C4031	A D 3B
C4032	A D 22J
C4050	A D 21O
C4051	A D 19F
C7101	B C 22E
C7102	B C 5L
C7103	A D 5M
C7104	A D 5M
C7105	A D 4N
C7106	B C 3M
C7107	B C 4M
C7108	B C 4M
C7109	A D 15P
C7110	B C 4M
C7111	B C 17O
C7112	B C 18O
C7113	A D 19O
C7114	A D 17O
C7115	B C 16P
C7116	B C 17O
C7117	A D 15O
C7118	A D 15O
C7119	B C 14P
C7120	A D 7O
C7121	B C 6O
C7122	A D 7O
C7123	A D 5O
C7124	A D 4O
C7125	A D 3O
C7126	B C 3L
C7127	A D 3N
C7128	A D 3I
C7129	B C 3I
C7130	B C 4H
C7131	B C 4H
C7132	B C 4H
C7133	A D 3I
C7134	B C 4H
C7135	B C 5H
C7136	B C 5H
C7137	B C 4H
C7138	B C 4H
C7139	B C 4H
C7140	B C 5H
C7141	B C 4J
C7142	B C 3L
C7143	A D 3O
C7144	A D 14P
C7145	B C 3N
C7191	B C 19O
C7351	A D 17M
C7352	A D 17N
C7353	A D 17N
C7354	A D 17N
C7355	A D 16N
C7356	A D 16N
C7357	A D 16N
C7501	A D 2O
C7502	B C 2O
C7503	A D 2O
C7504	B C 2O
C7505	B C 2P
C7506	B C 1O
C7507	A D 1O
C7508	B C 1P
C8001	B C 3H
C8002	B C 3G
C8003	B C 3H
C8004	B C 3G
C8005	B C 3H
C8006	B C 3G
C8007	A D 2G
C8008	A D 2G
C8009	B C 2H
C8010	B C 2G
C8051	A D 3G
C8052	A D 2H
C8053	B C 3H
CF6031	A D 22I

CONNECTOR

CN1	A D 18K
CN501	A D 13O
CN2001	A D 11M
CN2002	A D 21J
CN3001	A D 9J
CN3002	A D 1A
CN3901	A D 22B
CN5311	A D 1D
CN5313	A D 1F
CN7101	A D 5K
CN7103	A D 22E
CN7301	A D 4H

DIODE

D1	B C 18N
D3	A D 13L
D4	A D 14L
D5	B C 14L
D201	A D 10D
D501	A D 11K
D502	A D 7H
D2001	A D 20D
D2201	A D 19G
D2251	A D 17J
D3001	A D 14G
D3002	A D 17E
D3003	A D 3D
D3004	A D 2D
D3005	A D 2C
D3008	A D 11B
D3009	A D 1E
D3010	B C 21B
D3011	B C 20B
D3401	A D 3D
D4001	B C 9F
D4002	B C 15E
D5302	A D 3E
D5304	A D 3F
D5305	A D 3F
D5306	A D 3C
D5307	A D 2F
D6002	A D 21M
D7101	A D 3M
D7301	A D 20O
D8001	A D 6G

IC

IC1	B C 15K
IC2	B C 14H
IC501	B C 12J
IC2201	B C 18J
IC2202	A D 19L
IC3001	B C 16D
IC3002	B C 18B
IC3003	B C 20B
IC3302	B C 3B
IC7101	B C 4M
IC7102	B C 14P
IC7103	B C 5L
IC7104	B C 4I
IC7351	A D 18N
IC7501	B C 2N
IC8001	B C 2G

COIL

L1	A D 14M
L2	A D 14L
L3	A D 15H
L4	A D 13K
L5	A D 14J
L6	A D 15H
L7	A D 16J
L9	A D 16H
L10	A D 17K
L201	A D 11D
L202	A D 6E
L203	A D 9C
L204	A D 7F
L205	A D 9D
L501	A D 9K
L502	A D 7J
L503	A D 9J
L2001	A D 12M
L2201	A D 15G
L2251	A D 17J
L3001	A D 2D
L4001	A D 7J
L6003	A D 21O
L6005	A D 21M
L6006	A D 21G
L6032	A D 22J
L6050	A D 21O
L6501	A D 19F
L7101	A D 3N
L7102	A D 3M
L7502	A D 1O

TRANSISTOR

Q1	B C 14M
Q2	B C 12H
Q3	B C 13K
Q4	B C 14H
Q6	B C 16H
Q7	B C 17K
Q8	B C 17L
Q9	B C 18L
Q10	B C 18L
Q15	B C 15H
Q201	B C 8D
Q202	B C 6F
Q2001	B C 12K
Q2002	B C 13N
Q2003	B C 12M
Q2004	B C 13N
Q2005	B C 12M
Q2051	B C 21D
Q2052	B C 21D
Q2053	B C 21D
Q2054	B C 20F
Q2055	B C 21B
Q2201	B C 20F
Q2202	B C 21F
Q2203	B C 21G
Q2204	B C 21G
Q2251	B C 18G
Q2252	B C 17G
Q2253	B C 17G
Q2254	B C 18H
Q3001	A D 7H
Q3002	A D 21H
Q3004	B C 3D
Q4002	B C 10E
Q4003	B C 9E
Q5301	A D 1B
Q5302	B C 1C
Q5303	B C 1C
Q5304	A D 2E
Q5305	B C 3E
Q5306	A D 2E
Q5307	B C 3E
Q5308	B C 4E
Q5309	B C 3E
Q5310	A D 2C
Q5312	B C 1G
Q5313	B C 1H
Q5314	A D 2C
Q6030	B C 22H
Q6031	B C 22G
Q7101	B C 5M
Q7102	B C 4N
Q7103	B C 4M
Q7104	B C 17O
Q7105	B C 18O
Q7106	B C 18O
Q7107	B C 7P
Q7108	B C 6O
Q7109	B C 7O
Q7110	B C 5O
Q7111	B C 4O
Q7112	B C 3O
Q7113	B C 3L
Q7114	B C 3H
Q8053	B C 2I

RESISTOR

R1	B C 15L
R2	B C 15M
R3	B C 14M
R4	B C 14M
R5	B C 14M
R6	B C 12H
R7	B C 13H
R11	B C 16I
R12	B C 15I
R13	B C 15I
R14	B C 15I
R17	B C 15H
R18	B C 15J
R19	B C 13K
R20	B C 13K
R21	B C 17H
R22	B C 17H
R24	B C 16H
R25	B C 14H
R26	B C 14I
R27	B C 16H
R31	B C 15H
R36	B C 16E
R37	B C 17K
R38	B C 13K
R39	B C 12G
R40	B C 12H
R41	B C 14H
R201	B C 11D
R202	B C 11D
R203	B C 10D
R204	B C 9D
R205	B C 7F
R206	B C 9D
R207	B C 8D
R209	B C 7D
R210	B C 6F
R211	A D 6F
R212	B C 6F
R501	B C 12H
R503	B C 13I
R504	B C 13J
R505	B C 13I
R506	B C 13I
R507	B C 13I
R508	B C 13J
R510	B C 12K
R511	B C 11J
R512	B C 11K
R2007	B C 14M
R2010	B C 15M
R2013	B C 16M
R2014	B C 16M
R2015	B C 17M
R2016	B C 16M
R2017	B C 15M
R2018	B C 13N
R2019	B C 13N
R2021	B C 17M
R2022	A D 12G
R2023	A D 17I
R2024	B C 15M
R2025	B C 21D
R2026	B C 21D
R2027	B C 21D
R2053	B C 21D
R2054	B C 20C
R2055	B C 21D
R2056	A D 20C
R2057	B C 22B
R2058	B C 21B
R2059	B C 21B
R2060	B C 21C
R2201	B C 20K
R2202	B C 19J
R2203	B C 20K
R2204	B C 19K
R2205	B C 19K
R2206	B C 19K
R2207	B C 19K
R2208	B C 19K
R2209	B C 20F
R2210	B C 21F
R2211	B C 21G
R2212	B C 21G
R2213	B C 21F
R2214	B C 20F
R2215	A D 20G
R2216	B C 20H
R2217	B C 20H
R2218	B C 20G
R2219	B C 20H
R2220	B C 20F
R2221	B C 20K
R2222	B C 20K
R2223	B C 20K
R2224	B C 20K
R2225	B C 19L
R2226	B C 19L
R2227	B C 18L
R2228	B C 18L
R2229	B C 17M
R2230	B C 18H
R2231	B C 18H
R2251	B C 17I
R2252	B C 17J
R2254	B C 17I
R2255	B C 17J
R2256	B C 17G
R2257	B C 17J
R2258	B C 18K
R3024	B C 13D
R3025	B C 13D
R3026	B C 14D
R3028	B C 14D
R3029	B C 9C
R3030	B C 9C
R3031	B C 9C
R3032	B C 9C
R3033	B C 9C
R3034	B C 9B
R3035	B C 10B
R3037	B C 10B
R3038	B C 10B
R3039	B C 10B
R3041	B C 10B
R3042	B C 11B
R3043	B C 11B
R3045	B C 11B
R3046	B C 11B
R3047	B C 11B
R3048	B C 11B
R3049	B C 12B
R3050	B C 12B
R3051	B C 12B
R3052	B C 12B
R3053	B C 12B
R3054	B C 13B
R3055	B C 13B
R3058	B C 13B
R3059	B C 13B
R3060	B C 13B
R3061	B C 15B
R3062	B C 15B
R3063	B C 16B
R3064	B C 16B
R3065	B C 16B
R3066	B C 16B
R3067	B C 16B
R3068	B C 17B
R3069	B C 17B
R3070	B C 17B
R3071	B C 17B
R3072	B C 17B
R3073	B C 18B
R3074	B C 18B
R3077	B C 18C
R3080	B C 17C
R3082	B C 18C
R3083	B C 18C
R3084	B C 17C
R3085	B C 19C
R3086	B C 19D
R3087	B C 18D
R3088	B C 19D
R3089	B C 18D
R3091	B C 18D
R3092	B C 18D
R3093	B C 18D
R3094	B C 18D
R3095	B C 18D
R3096	B C 17D
R3098	B C 17E
R3099	B C 17D
R3100	B C 17E
R3101	B C 17E
R3102	B C 16E
R3205	A D 12G
R3206	B C 6D
R3207	B C 9C
R3208	B C 17D
R3209	B C 17D
R3210	B C 11E
R3211	B C 11E
R3212	A D 19D
R3213	B C 19D
R3214	B C 10F
R3215	B C 10F
R3216	B C 9F
R3217	B C 8F
R3218	B C 2E
R3219	B C 3E
R3220	A D 2D
R3221	B C 7D
R3222	B C 6E
R3223	B C 20A
R3224	B C 20B
R3225	B C 20C
R3229	B C 17C
R3232	B C 14D
R3234	B C 11B
R3235	B C 19B
R3236	B C 19B
R3237	B C 9B
R3240	B C 9C
R3242	B C 13D
R3243	B C 11B
R3244	B C 8B
R3246	B C 18C
R3248	B C 18C
R3252	B C 8J
R3253	B C 7J
R3254	B C 11C
R3255	B C 6B
R3256	B C 10B
R3301	B C 3B
R3302	B C 3A
R3303	B C 3B
R3304	B C 3B
R3305	B C 3A
R3306	B C 4C
R3307	B C 15A
R3308	B C 15B
R3309	B C 4A
R3401	B C 3D
R3402	B C 3D
R4001	B C 7G
R4002	B C 15E
R4003	B C 15E
R4004	B C 15E
R4005	B C 13E
R4006	B C 14E
R4007	B C 12E
R4009	B C 13E
R4010	B C 15E
R4012	B C 14E
R4013	B C 14E
R4015	B C 7G
R4016	B C 13E
R4017	B C 14E
R4020	B C 7C
R4021	B C 13E
R5303	B C 1B
R5304	B C 1C
R5310	B C 3E
R5311	B C 3E
R5312	B C 3E
R5313	B C 4E
R5314	B C 3E
R5315	B C 3E
R5316	A D 2G
R5322	A D 2G
R5323	A D 1G
R5324	B C 1H
R6020	B C 22N
R6021	B C 22M
R6030	B C 22H
R6031	B C 21K
R6034	B C 22H
R6050	B C 22O
R6051	B C 21O
R6502	B C 19H
R7101	B C 22D
R7102	B C 22D
R7103	B C 22E
R7104	B C 4L
R7105	B C 5M
R7106	B C 5M
R7107	B C 5M
R7108	B C 6M
R7109	B C 4N
R7110	B C 3N
R7111	B C 3N
R7112	B C 4M
R7113	B C 4M
R7114	B C 4M
R7115	B C 3M
R7116	B C 3M
R7117	B C 3M
R7118	B C 3M
R7119	B C 16O
R7120	A D 17O
R7121	B C 18O
R7122	A D 18O
R7123	B C 17O
R7124	A D 18O
R7125	B C 19O
R7126	B C 16P
R7127	B C 16O
R7128	B C 17P
R7129	B C 18O
R7130	B C 17O
R7131	B C 17P
R7132	B C 19O
R7133	B C 18O
R7134	B C 18P
R7135	B C 18P
R7136	B C 4L
R7137	B C 3L
R7138	B C 3L
R7139	B C 4K
R7140	B C 4L
R7141	B C 4K
R7142	B C 3K
R7143	B C 3L
R7144	B C 4L
R7145	B C 4L
R7146	B C 3L
R7147	B C 3L
R7148	B C 8O
R7149	A D 7O
R7150	B C 6O
R7151	A D 6O
R7152	B C 7O
R7153	A D 7O
R7154	B C 7P
R7155	B C 7P
R7156	B C 6P
R7157	A D 7P
R7158	B C 5O
R7159	A D 5O
R7160	B C 4O
R7161	A D 4O
R7162	B C 3N
R7163	A D 3O
R7164	B C 8P
R7165	B C 8P
R7166	B C 8P
R7167	B C 5O
R7168	B C 4P
R7169	B C 4P
R7170	B C 4O
R7171	B C 4P
R7172	B C 3O
R7173	B C 4H
R7174	B C 4H
R7175	B C 4H
R7176	B C 4H
R7177	B C 5H
R7178	B C 5H
R7179	B C 5H
R7180	B C 5H
R7181	B C 3I
R7182	B C 9O
R7183	B C 3L
R7191	B C 20O
R7192	B C 19O
R7193	B C 20O
R7301	B C 20O
R7302	B C 20P
R7311	B C 20O
R7319	B C 20P
R7323	B C 21O
R7324	B C 21O
R7351	B C 16M
R7501	B C 1O
R7502	B C 2O
R7503	B C 2O
R7504	B C 2O
R7505	B C 2O
R7506	B C 2P
R7507	B C 2O
R7508	B C 1P
R8001	B C 3H
R8002	B C 4G
R8003	B C 4H
R8004	B C 4G
R8005	B C 3H
R8006	B C 3G
R8007	B C 3H
R8008	B C 3G
R8009	B C 3H
R8010	B C 3G
R8011	B C 3H
R8012	B C 3G
R8013	B C 2G
R8014	B C 2G
R8015	B C 2H
R8016	B C 2G
R8017	B C 3H
R8018	B C 2H
R8019	B C 2H
R8020	B C 2H
R8051	B C 3G
R8052	B C 2H
R8053	B C 3H
R8056	B C 3H
R8057	B C 2H

OTHER

CP3001	A D 5G
CP3002	B C 5G
CP4001	A D 5F
CP4002	B C 5G
J7002	A D 18P
J7003	A D 17P
J7004	A D 7P
J7005	A D 8P
J7006	A D 4P
J7008	A D 20P
J7009	A D 2P
J7010	A D 1P
JS3001	A D 10F
K2251	B C 18K
K2252	B C 18K
K2253	B C 18K
K7501	B C 1O
K7502	B C 1M
K7503	B C 2P
K7504	B C 2B
K7505	B C 2B
K7506	B C 2B
K7507	B C 3B
K7508	B C 3B
PC085	B C 21A
PC02242	B C 1Q
PC02505	B C 22N
PC3001	A D 17E
PC3002	A D 11E
S3001	A D 20B
S3002	A D 6D
T2051	A D 20D
TL3901	B C 21B
TL3902	B C 4A
TL3903	B C 17B
TL3904	B C 17C
TL3905	B C 18C
TL3906	B C 10C
TL3908	B C 10B
TP106	A D 6K
TP111	A D 5K
TP2253	A D 6J
TP2254	A D 5J
TP4001	A D 6K
TU6001	A D 22P
VR2251	A D 22E
WR1	A D 15J
WR2	A D 15M
WR3	A D 12K
X2	A D 16K
X3001	A D 17C
X3002	A D 17C

COMPONENT PARTS LOCATION GUIDE -

REF.NO.	LOCATION
CAPACITOR	
C1	B C 15L
C2	B C 14M
C4	A D 15M
C5	B C 14M
C6	B C 14M
C7	B C 14L
C8	B C 14L
C9	A D 13M
C10	A D 13L
C11	B C 13M
C12	B C 9M
C13	B C 12N
C14	B C 10N
C15	B C 14L
C16	B C 14L
C17	B C 14L
C18	B C 14K
C19	B C 14K
C20	B C 14K
C22	B C 14K
C24	B C 14K
C25	A D 14K
C26	A D 14J
C27	B C 13K
C30	B C 15J
C31	A D 15J
C32	A D 14J
C33	A D 15J
C34	B C 14J
C35	B C 15J
C36	A D 15J
C37	B C 16J
C38	B C 15J
C39	A D 15I
C40	B C 16J
C41	B C 16I
C43	A D 14I
C44	A D 14J
C45	B C 16I
C46	B C 16J
C47	A D 14I
C48	B C 16J
C49	A D 15J
C50	B C 16I
C52	B C 16H
C55	B C 17J
C56	B C 17J
C57	B C 17L
C58	B C 17L
C59	B C 17L
C60	B C 17L
C61	A D 17L
C62	A D 16L
C63	B C 17K
C201	B C 11D
C202	A D 11D
C203	B C 11D
C204	B C 10D
C205	A D 6E
C206	B C 7F
C207	A D 7G
C208	B C 9C
C209	A D 6E
C210	B C 10D
C211	B C 6F
C212	B C 12D
C213	B C 10C
C501	A D 9I
C502	B C 11I
C503	A D 11K
C504	A D 13J
C506	A D 8J
C507	A D 12I
C508	B C 12H
C509	B C 14H
C510	A D 12K
C511	A D 9K
C513	B C 13J
C514	B C 13I
C515	B C 13I
C516	B C 13I
C517	A D 13K
C518	A D 13J
C519	B C 13K
C520	A D 13K
C521	B C 13K
C522	A D 13K
C523	A D 12K
C524	A D 12L
C525	A D 12L
C528	B C 12K
C529	B C 11K
C530	B C 11K
C536	B C 11K
C537	B C 13J
C538	B C 13J
C539	A D 12K
C540	B C 11K
C541	A D 10K
C2001	A D 14M
C2002	A D 14M
C2003	A D 14M
C2004	B C 14M
C2005	A D 17M
C2006	B C 16M
C2007	A D 16M
C2008	A D 16L
C2009	B C 16M
C2010	B C 16M
C2011	A D 16M
C2012	A D 15M
C2051	B C 11M
C2052	A D 21J
C2053	B C 20D
C2054	B C 21D
C2055	A D 20C
C2201	A D 20K
C2202	A D 20K
C2203	A D 19M
C2204	A D 19K
C2205	A D 18K
C2206	A D 18K
C2207	B C 18K
C2208	B C 17J
C2209	A D 18G
C2210	A D 18G
C2211	A D 18H
C2212	A D 18G
C2213	B C 18I
C2214	A D 19G
C2215	A D 20G
C2216	A D 20G
C2217	B C 20G
C2218	A D 20H
C2219	A D 20H
C2220	A D 19I
C2221	B C 19I
C2222	B C 18H
C2223	A D 19L
C2224	A D 19L
C2225	A D 19M
C2226	A D 17N
C2227	A D 19K
C2228	A D 19L
C2229	A D 18M
C2230	B C 18I
C2231	B C 18I
C2234	B C 20J
C2235	B C 20J
C2251	B C 18K
C2252	B C 18K
C2253	B C 18K
C2254	A D 18J
C2255	B C 17K
C2256	B C 17K
C2257	B C 17I
C2259	A D 17J
C2261	B C 18J
C2262	B C 18K
C3008	B C 21H
C3011	A D 3D
C3012	A D 6D
C3013	B C 6D
C3014	A D 3D
C3016	B C 15B
C3021	A D 21B
C3022	B C 20B
C3024	B C 17B
C3025	A D 17C
C3030	A D 18B
C3031	B C 18B
C3033	B C 16E
C3036	B C 17C
C3037	B C 17C
C3041	B C 17C
C3045	B C 21H
C3046	B C 6H
C3047	B C 14D
C3048	B C 10C

REF.NO.	LOCATION
C3050	B C 17C
C3052	A D 18C
C3053	B C 18C
C3054	B C 18C
C3055	A D 18C
C3056	B C 9K
C3071	A D 8J
C3072	B C 3D
C3401	B C 3C
C3402	B C 3D
C4001	A D 11D
C4002	B C 12D
C4003	B C 12D
C4004	A D 8G
C4005	B C 9E
C4006	A D 7G
C4008	A D 6D
C4009	B C 13D
C4010	B C 9E
C4011	B C 14E
C4012	A D 7H
C4014	B C 14E
C4015	B C 15E
C4016	B C 14E
C4017	A D 11E
C4018	B C 9E
C4031	A D 8J
C5302	A D 3E
C5303	A D 3F
C5304	A D 2F
C5305	A D 2C
C6005	A D 21M
C6006	B C 22M
C6007	A D 22J
C6008	B C 21M
C6012	A D 21O
C6013	B C 22O
C6020	B C 21N
C6021	B C 21N
C6032	A D 22J
C6033	B C 22H
C6052	B C 22O
C6053	B C 22O
C6054	B C 22P
C6055	B C 22O
C6501	B C 19J
C6502	A D 20L
C6503	A D 19L
C6504	B C 19H
C6505	A D 19G
C6506	B C 19H
C6509	B C 19H
C6511	B C 19H
C6512	B C 19H
C6513	A D 19H
C6514	B C 20J
C6515	A D 20I
C6516	A D 19G
C6517	B C 19H
C6532	B C 21K
C6601	A D 18H
C6602	A D 19H
C6605	A D 20I
C7102	B C 5L
C7103	B C 5M
C7109	A D 13P
C7111	B C 13P
C7114	A D 15P
C7117	A D 14P
C7118	A D 14P
C7119	B C 14P
C7120	A D 7O
C7121	B C 6O
C7122	A D 7O
C7123	A D 5O
C7124	A D 4O
C7125	A D 3O
C7126	B C 4L
C7128	A D 3I
C7129	B C 3I
C7130	B C 4H
C7131	B C 4H
C7132	B C 4H
C7133	A D 3I
C7134	B C 4H
C7135	B C 5H
C7136	B C 5H
C7137	B C 4H
C7138	B C 4H
C7139	B C 5H
C7140	B C 5H
C7141	A D 3O
C7501	A D 2O
C7502	B C 2O
C7503	A D 2O
C7504	B C 2O
C7505	B C 2P
C7506	B C 1O
C7507	A D 1O
C7508	B C 1P
C8001	B C 3H
C8002	B C 3G
C8003	B C 3H
C8004	B C 3G
C8005	B C 3H
C8006	B C 3G
C8007	A D 2G
C8008	A D 2G
C8009	B C 2H
C8010	B C 3G
C8051	A D 3G
C8052	A D 2H
C8053	B C 3H

CONNECTOR

CN1	A D 18K
CN2001	A D 11M
CN2002	A D 21J
CN3001	A D 9J
CN3102	A D 4A
CN3103	A D 1A
CN5311	A D 1D
CN5313	A D 1F
CN7301	A D 4H

DIODE

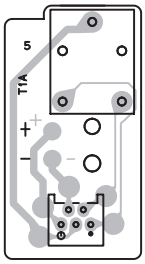
D1	B C 18N
D5	B C 14L
D201	A D 10D
D2001	A D 20D
D2251	A D 17J
D3001	A D 14G
D3002	A D 17E
D3003	A D 3D
D3004	A D

<MAIN> LPB10221-001A

REF.NO.	LOCATION	REF.NO.	LOCATION
R2204	B C 19K	R7169	B C 4P
R2205	B C 19K	R7170	B C 4O
R2206	B C 19K	R7171	B C 4P
R2207	B C 19K	R7172	B C 4O
R2208	B C 19K	R7173	B C 4H
R2209	A D 20F	R7174	B C 4H
R2210	B C 21F	R7175	B C 4H
R2211	B C 20H	R7176	B C 4H
R2212	B C 21G	R7177	B C 5H
R2213	B C 21F	R7178	B C 5H
R2214	A D 20F	R7179	B C 5H
R2216	B C 20H	R7180	B C 5H
R2217	B C 20H	R7181	B C 3I
R2218	B C 20G	R7182	A D 8O
R2219	B C 20H	R7191	B C 20O
R2220	B C 20F	R7192	B C 19O
R2221	B C 20K	R7193	B C 20O
R2222	B C 20K	R7501	B C 1O
R2223	B C 20K	R7502	B C 2O
R2224	B C 20K	R7503	B C 2O
R2225	B C 19L	R7504	B C 2O
R2226	B C 19L	R7505	B C 2O
R2227	B C 18L	R7506	B C 2P
R2228	B C 18L	R7507	B C 2O
R2229	A D 20M	R8001	B C 4H
R2230	B C 18H	R8002	B C 4G
R2231	B C 18H	R8003	B C 4H
R2251	B C 17I	R8004	B C 4G
R2252	B C 17J	R8005	B C 3H
R2255	B C 17I	R8006	B C 3G
R2257	B C 17J	R8007	B C 3H
R3033	A D 7C	R8008	B C 3G
R3034	A D 7B	R8009	B C 3H
R3043	B C 11B	R8010	B C 3G
R3048	B C 11B	R8011	B C 3H
R3049	B C 12B	R8012	B C 3G
R3050	B C 12B	R8013	B C 2G
R3051	A D 12A	R8014	B C 2G
R3052	B C 12B	R8015	B C 2H
R3058	B C 13B	R8016	B C 2G
R3061	A D 15B	R8017	B C 3H
R3062	A D 16B	R8018	B C 2H
R3063	B C 16B	R8051	A D 3G
R3064	B C 16B	R8052	B C 2H
R3065	B C 16B	R8053	B C 3H
R3069	A D 16B	R8054	B C 4H
R3077	B C 18C	R8055	B C 2I
R3080	B C 17C	R8056	B C 3H
R3085	B C 19C	R8057	B C 2H
R3098	A D 19D		
R3101	B C 17E	**OTHER**	
R3205	A D 12G	CF6031	A D 22I
R3206	B C 6D	CP3002	B C 5G
R3207	A D 9B	CP4002	B C 5G
R3208	B C 17D	J7002	A D 18P
R3209	B C 17D	J7004	A D 7P
R3210	B C 11E	J7005	A D 8P
R3211	B C 11E	J7006	A D 4P
R3212	A D 17F	J7008	A D 20P
R3213	B C 19C	J7009	A D 2P
R3214	B C 10F	J7010	A D 1P
R3215	B C 10F	JS3001	A D 10F
R3216	B C 9F	K2251	B C 18K
R3217	B C 9F	K2252	B C 18K
R3218	B C 2E	K2253	B C 18K
R3219	B C 3E	K7501	B C 1O
R3220	A D 2D	K7502	B C 1M
R3222	B C 6D	K7503	B C 2P
R3223	B C 20A	K7504	B C 2B
R3224	B C 20B	K7505	B C 2B
R3225	B C 20C	K7506	B C 2B
R3229	B C 17C	K7507	B C 3B
R3234	B C 11B	K7508	B C 3B
R3235	A D 19B	PC085	B C 21A
R3236	A D 19B	PC02242	B C 1Q
R3240	B C 9C	PC02505	B C 22N
R3242	B C 13D	PC3001	A D 17E
R3243	B C 11B	PC3002	A D 11E
R3244	B C 9B	S3001	A D 20B
R3246	B C 18C	T2051	A D 20D
R3248	B C 18C	TL3901	B C 16B
R3252	B C 8J	TL3902	B C 4A
R3253	B C 8J	TL3903	B C 17B
R3256	B C 9B	TL3904	B C 17C
R3301	A D 4B	TL3905	B C 18C
R3302	A D 4B	TL3906	B C 10B
R3303	A D 4C	TL3908	B C 11B
R3304	B C 3B	TP106	A D 6K
R3305	A D 4C	TP111	A D 6K
R3306	B C 4C	TP2253	A D 6J
R3307	B C 15A	TP4001	A D 5K
R3308	B C 15B	TU6001	A D 22P
R3401	B C 2D	WR1	A D 15J
R3402	B C 2C	WR2	A D 15M
R4003	B C 15E	X2	A D 16K
R4004	B C 15E	X3001	A D 17C
R4005	B C 13E	X3002	A D 17C
R4007	B C 12E		
R4009	B C 13E		
R4010	B C 15E		
R4012	B C 14E		
R4013	B C 14E		
R4015	B C 7H		
R4017	B C 13E		
R5303	B C 1B		
R5304	B C 2B		
R5310	B C 2E		
R5311	B C 3F		
R5312	B C 3E		
R5313	B C 3E		
R5314	B C 3E		
R5315	B C 3E		
R5316	A D 2D		
R5322	A D 2G		
R5323	A D 1G		
R5324	B C 1H		
R6020	B C 22N		
R6021	B C 22M		
R6030	B C 22H		
R6031	B C 21K		
R6034	B C 22H		
R6050	B C 22O		
R6051	A D 21O		
R6502	B C 19H		
R7104	A D 3M		
R7105	B C 5L		
R7117	B C 3N		
R7118	B C 3N		
R7131	B C 17P		
R7134	B C 18P		
R7136	B C 4L		
R7137	B C 4L		
R7138	A D 2L		
R7154	B C 7P		
R7155	B C 7P		
R7156	B C 6P		
R7157	A D 7P		
R7164	B C 8P		
R7165	B C 8P		
R7166	B C 8P		
R7167	B C 5O		
R7168	B C 4P		

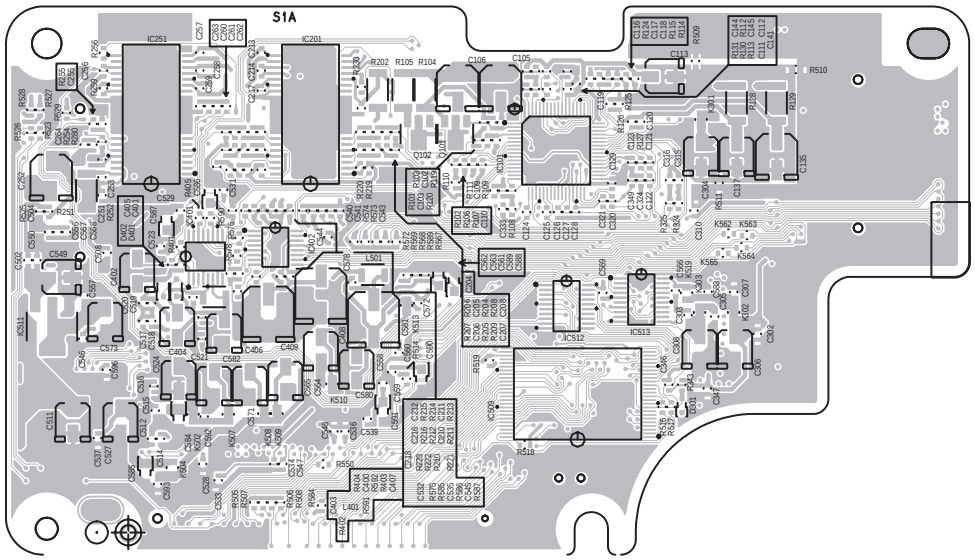
■ SWITCH AND DVD SERVO CONTROL CIRCUIT BOARDS

<98> SWITCH
LEB10070-001A



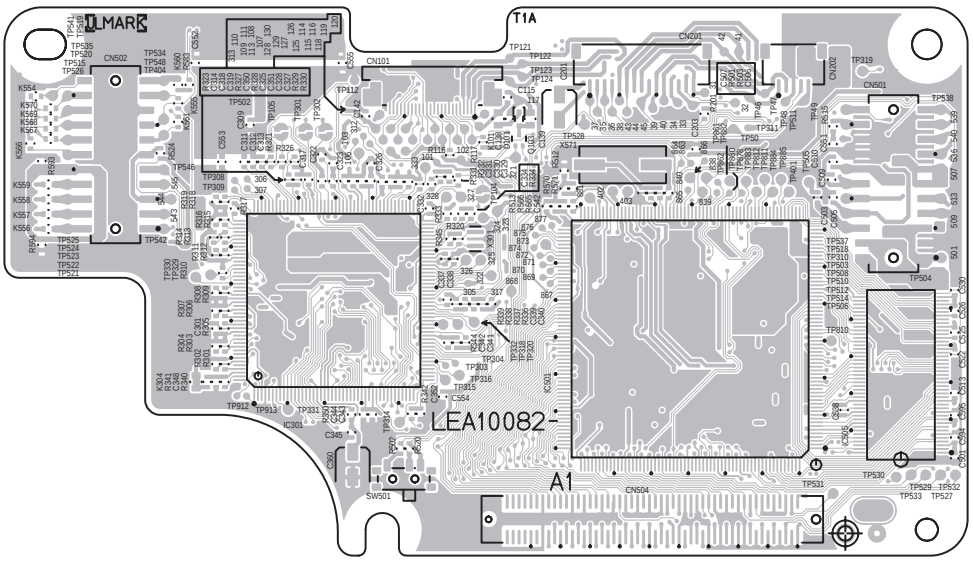
<99> DVD SERVO CONTROL
LEB10082-001A

-COMPONENT SIDE-



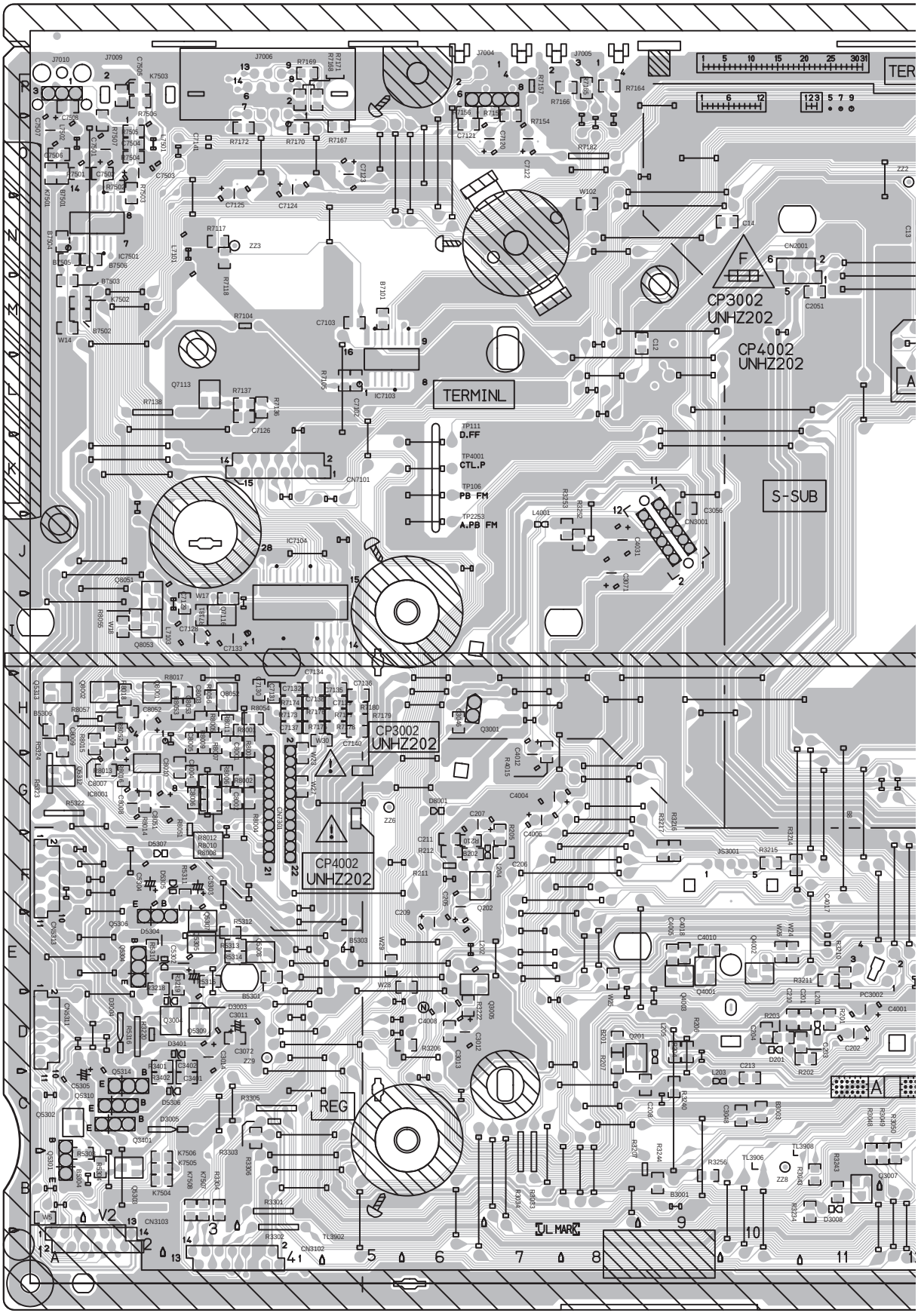
<99> DVD SERVO CONTROL
LEB10082-001A

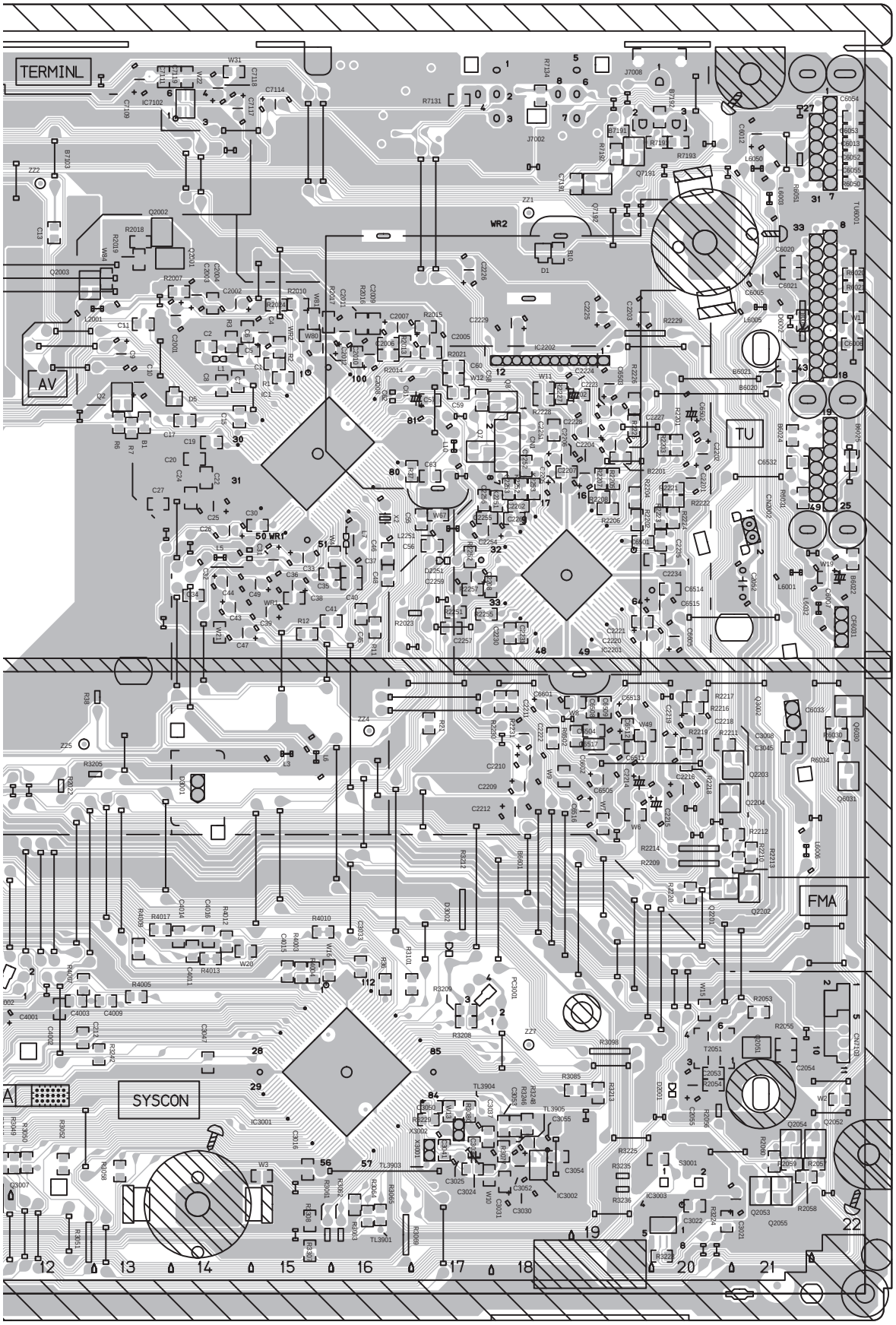
-FOIL SIDE-



■ MAIN CIRCUIT BOARD

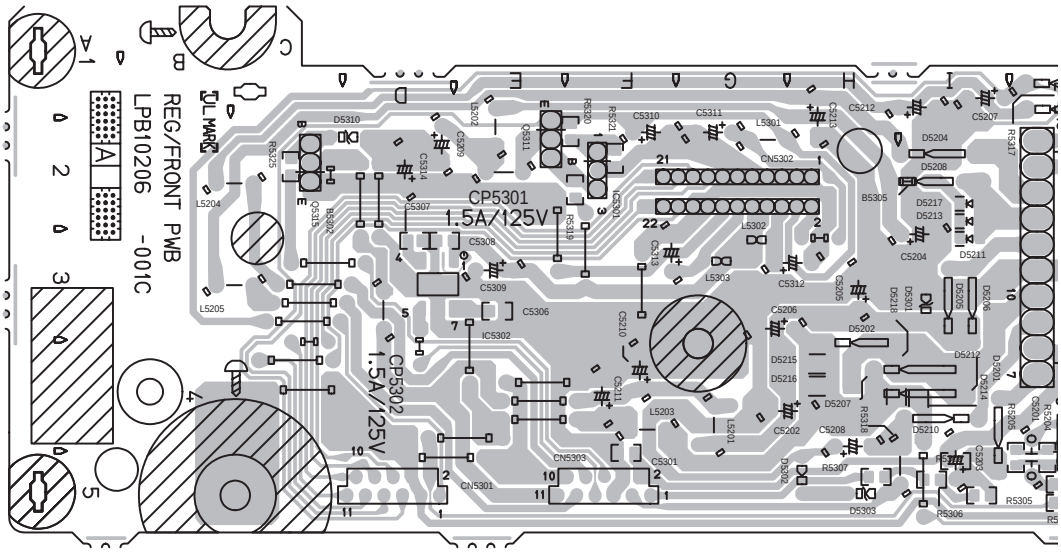
<03> MAIN
LPB10221-001A



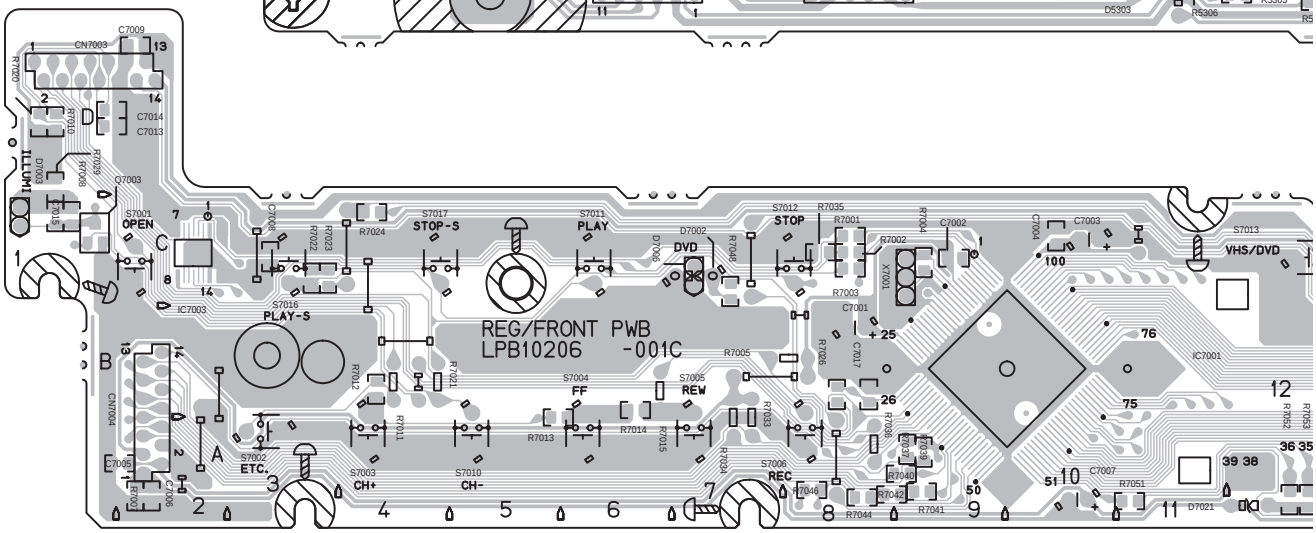

TERMINL
AV
SYSCON
FMA

■ REGULATOR, JACK, DISPLAY AND 2D DIGITAL CIRCUIT BOARDS

<01> REGULATOR
LPB10206-001C



<28> DISPLAY
LPB10206-001C



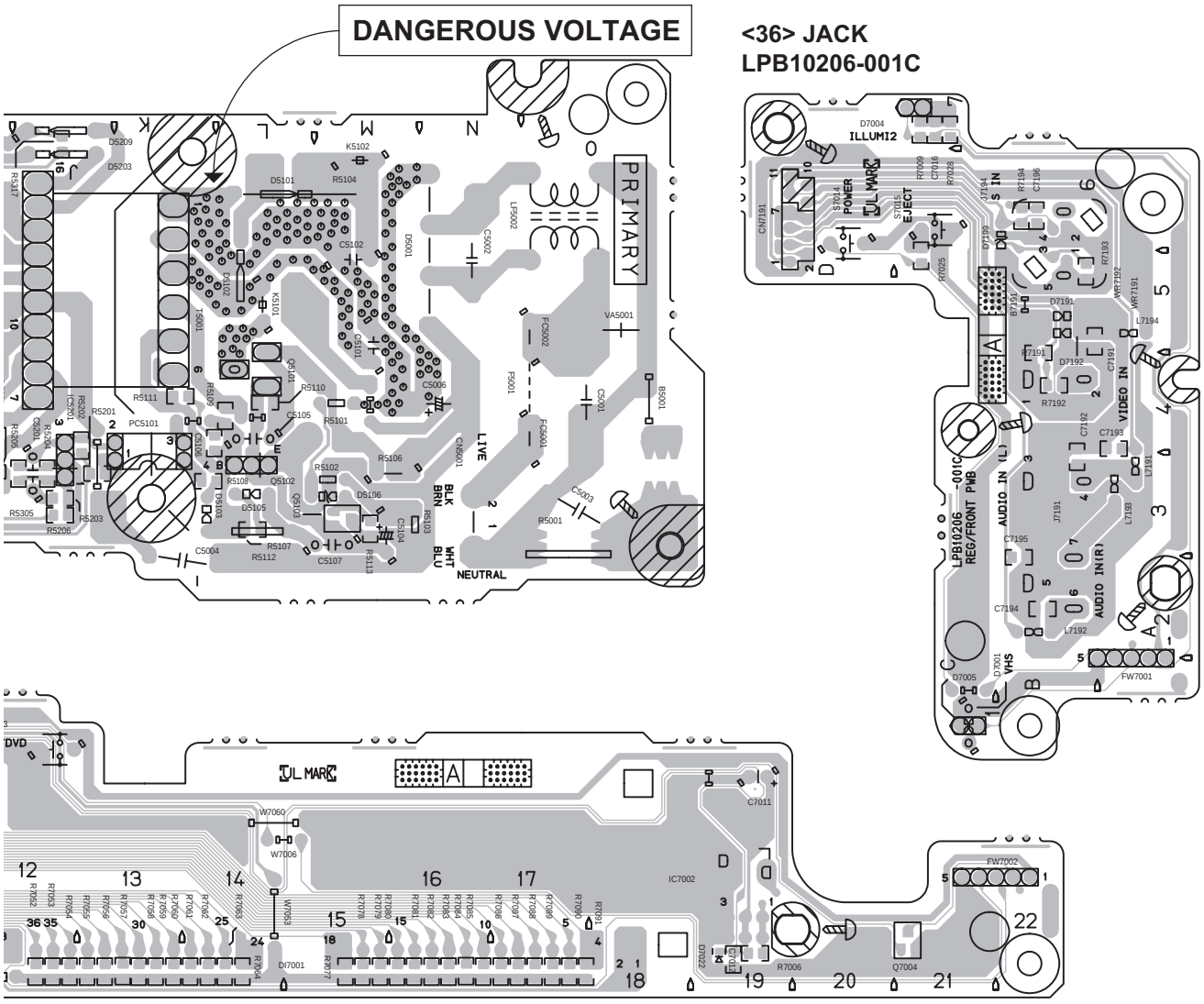
COMPONENT PARTS LOCATION GUIDE <REGULATOR> LPB10206-001C

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C5313	A D 3F	D5211	B C 3I	Q5102	A D 4L	R5321	B C 2F
C5001	A D 4O	C5314	A D 2D	D5212	A D 4I	Q5103	B C 5L	R5325	B C 2C
C5002	A D 3N	C7016	B C 1R	D5213	B C 2I	Q5311	A D 2E	R7009	B C 1Q
C5003	A D 5N	C7191	B C 3S	D5214	B C 4H	Q5315	A D 2C	R7025	B C 2Q
C5004	A D 5K	C7192	B C 4S	D5215	B C 4H			R7028	B C 1R
C5006	A D 4M	C7193	B C 4S	D5216	B C 4H	**RESISTOR**		R7191	B C 3S
C5101	A D 3M	C7195	B C 5R	D5217	B C 2I	R5001	A D 5N	R7192	B C 4S
C5102	A D 2L	C7196	B C 2S	D5218	B C 4H	R5101	A D 4M	R7193	B C 3S
C5104	A D 5M			D5301	A D 3H	R5102	A D 5L	R7194	B C 2R
C5105	A D 4L	**CONNECTOR**		D5302	A D 5G	R5103	A D 5M		
C5106	B C 4K	CN5001	A D 5N	D5303	A D 5H	R5104	A D 2K	**OTHER**	
C5107	A D 5L	CN5301	A D 5D	D5310	A D 2C	R5106	A D 5M	CP5301	A D 2E
C5201	A D 4I	CN5302	A D 2G			R5107	A D 5L	CP5302	A D 3D
C5202	A D 4G	CN5303	A D 5F	**IC**		R5108	B C 5K	F5001	A D 4N
C5203	A D 5I	CN7191	A D 2P	IC5201	A D 5J	R5109	B C 4K	FC5001	A D 4N
C5204	A D 3H			IC5301	A D 2E	R5110	B C 4L	FC5002	A D 3N
C5205	A D 3H	**DIODE**		IC5302	B C 3D	R5111	B C 4K	K5101	A D 3L
C5206	A D 3G	D5001	A D 2M			R5112	B C 5L	K5102	A D 1L
C5207	A D 1I	D5101	A D 2L	**COIL**		R5113	B C 5M	LF5002	A D 2O
C5208	A D 4H	D5102	A D 3K	L5201	A D 4G	R5201	B C 5J	PC5101	A D 4J
C5209	A D 2D	D5103	A D 5K	L5202	A D 1E	R5202	B C 4J	S7014	A D 2Q
C5210	A D 4F	D5105	A D 5L	L5203	A D 4F	R5203	B C 5J	S7015	A D 2R
C5211	A D 4F	D5106	A D 5L	L5204	A D 2B	R5204	B C 5J	T5001	A D 2K
C5212	A D 1H	D5201	A D 4I	L5205	A D 3B	R5205	B C 5I	VA5001	A D 3O
C5213	A D 1G	D5202	A D 4H	L5301	A D 2G	R5206	B C 5J		
C5301	B C 5F	D5203	A D 1J	L5302	A D 3G	R5302	B C 5I		
C5306	B C 3E	D5204	A D 2I	L5303	A D 3G	R5305	B C 5I		
C5307	B C 3D	D5205	A D 3I	L7191	A D 5T	R5306	B C 5H		
C5308	B C 3D	D5206	A D 3I	L7193	A D 4S	R5307	B C 5H		
C5309	A D 3E	D5207	A D 4I	L7194	A D 3S	R5317	B C 1J		
C5310	A D 2F	D5208	A D 2I			R5318	A D 4H		
C5311	A D 2G	D5209	A D 1J	**TRANSISTOR**		R5319	B C 2E		
C5312	A D 3G	D5210	A D 4H	Q5101	A D 3L	R5320	B C 2E		

COMPONENT PARTS LOCATION GUIDE <DISPLAY> LPB10206-001

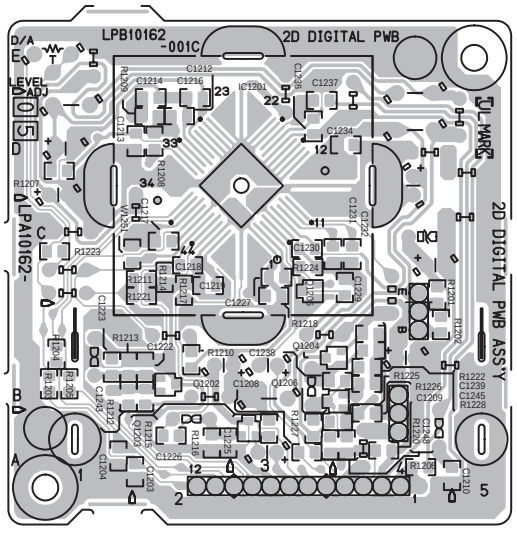
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		D7199	A D 20F	R7025	B C 19F	R7080	B C 16A
C7001	A D 8B	DI7001	A D 15B	R7026	B C 8B	R7081	B C 16A
C7002	B C 9C			R7028	B C 20H	R7082	B C 16A
C7003	A D 10C	**IC**		R7029	B C 1D	R7083	B C 16A
C7004	B C 10C	IC7001	B C 10B	R7033	A D 7A	R7084	B C 16A
C7005	B C 2A	IC7002	A D 19B	R7034	A D 7A	R7085	B C 16A
C7006	B C 2A	IC7003	B C 2C	R7035	B C 8C	R7086	B C 17A
C7007	A D 10A			R7036	A D 8A	R7087	B C 17A
C7008	B C 3C	**TRANSISTOR**		R7037	B C 9A	R7088	B C 17A
C7009	B C 2E	Q7003	B C 1C	R7039	B C 9A	R7089	B C 17A
C7011	A D 19C	Q7004	B C 21A	R7040	B C 9A	R7090	B C 17A
C7012	B C 19A			R7041	B C 9A	R7091	B C 17A
C7013	B C 1D	**RESISTOR**		R7042	B C 8A		
C7014	B C 1D	R7001	B C 8C	R7044	B C 8A	**OTHER**	
C7015	B C 1C	R7002	B C 8C	R7046	B C 8A	FW7002	A D 22B
C7016	B C 20H	R7003	B C 8C	R7048	B C 7C	S7001	A D 2C
C7017	B C 8B	R7004	B C 9C	R7051	B C 11A	S7002	A D 3A
		R7005	A D 8B	R7052	B C 12A	S7003	A D 4A
CONNECTOR		R7006	B C 19A	R7053	B C 12A	S7004	A D 6A
CN7003	A D 1E	R7007	B C 2A	R7054	B C 12A	S7005	A D 7A
CN7004	A D 2A	R7008	B C 1C	R7055	B C 13A	S7006	A D 8A
		R7009	B C 19H	R7056	B C 13A	S7010	A D 5A
DIODE		R7010	B C 1D	R7057	B C 13A	S7011	A D 6C
D7001	A D 20B	R7011	A D 4B	R7058	B C 13A	S7012	A D 8C
D7002	A D 7C	R7012	B C 4B	R7059	B C 13A	S7013	A D 12C
D7003	A D 1C	R7013	B C 5A	R7060	B C 13A	S7014	A D 19G
D7004	A D 19H	R7014	B C 6B	R7061	B C 14A	S7015	A D 20G
D7005	A D 20B	R7015	A D 6B	R7062	B C 14A	S7016	A D 3C
D7006	A D 7C	R7020	B C 1D	R7063	B C 14A	S7017	A D 4C
D7021	A D 12A	R7021	A D 4B	R7064	B C 14A		
D7022	B C 19A	R7022	B C 3C	R7077	B C 15A		
D7191	A D 21F	R7023	B C 3C	R7078	B C 15A		
D7192	A D 21F	R7024	B C 4C	R7079	B C 15A		

CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S).
ATTENTION :
REPLACER PAR DES FUSIBLE DE MEME TYPE.



:06-001C

<05> 2D DIGITAL
LPB10162-001C



COMPONENT PARTS LOCATION GUIDE <2D DIGITAL> LPB10162-001C

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C1237	B C 3E	**RESISTOR**	
C1201	A D 4C	C1238	B C 3B	R1201	B C 4C
C1211	A D 1D	C1239	B C 4B	R1202	B C 4C
C1215	A D 1D	C1243	B C 2B	R1203	B C 1B
C1220	A D 3B	C1245	B C 4B	R1204	B C 1B
C1228	A D 3B	C1248	B C 4A	R1205	B C 1B
C1233	A D 4C			R1206	B C 4A
C1235	A D 4D	**CONNECTOR**		R1207	B C 1D
C1244	A D 3A	CN1201	A D 4A	R1208	B C 2D
C1246	A D 4B			R1209	B C 2D
C1203	B C 2A	**DIODE**		R1210	B C 2B
C1204	B C 1A	D1201	A D 4C	R1211	B C 2C
C1208	B C 3A			R1212	B C 2B
C1209	B C 4A	**IC**		R1213	B C 2B
C1210	B C 5A	IC1201	B C 3D	R1214	B C 2C
C1212	B C 2D	**COIL**		R1215	B C 3B
C1213	B C 2D	L1201	A D 4B	R1216	B C 2A
C1214	B C 2E	L1202	A D 1D	R1217	B C 2C
C1216	B C 2E	L1203	A D 4E	R1218	B C 3C
C1217	B C 2C	L1204	A D 3B	R1220	B C 3A
C1218	B C 2C	L1205	A D 1B	R1221	B C 2C
C1219	B C 2C	L1206	A D 2B	R1222	B C 4B
C1222	B C 2B	L1207	A D 4D	R1223	B C 1C
C1223	B C 1B	L1208	A D 3B	R1224	B C 3C
C1225	B C 2A			R1225	B C 3B
C1226	B C 2B	**TRANSISTOR**		R1226	B C 4B
C1227	B C 3C	Q1201	A D 4C	R1227	B C 3B
C1229	B C 4C	Q1202	B C 2B	R1228	B C 4B
C1230	B C 3C	Q1203	B C 3B		
C1231	B C 3C	Q1204	B C 3B		
C1232	B C 4C	Q1205	B C 3C	**OTHER**	
C1234	B C 4D	Q1206	B C 3B	LC1201	A D 4B
C1236	B C 3D			VR1201	A D 1E

■ VOLTAGE CHARTS

<SW.REG>

MODE PIN NO.	REC	PLAY
IC5201		
1	2.4	2.4
2	0	0
3	4.6	4.6
IC5301		
1	2.4	2.4
2	0	0
3	4.0	4.0
IC5302		
1	5.0	5.0
2	0.5	0.4
3	0	0.4
4	3.4	3.4
5	5.1	5.1
6	0	0
7	5.6	5.6
Q5101		
D	136.5	136.2
S	0	0
G	3.3	3.3
Q5102		
E	0	0
C	3.3	3.3
B	0.3	0.3
Q5103		
E	3.3	3.3
C	0	0
B	10.8	10.7
Q5311		
E	3.3	3.3
C	3.5	3.5
B	4.0	4.0
Q5315		
E	9.2	9.2
C	11.7	11.7
B	9.8	9.8
CN5301		
1	46.1	45.9
2	5.6	5.6
3	0	0
4	0	0
5	3.2	3.3
6	3.1	3.1
7	3.2	3.2
8	3.1	3.1
9	3.1	3.1
10	3.2	3.2
11	0	0
CN5302		
1	0	0
2	3.2	3.2
3	0	0
4	3.2	4.8
5	0	0
6	4.8	5.0
7	0	0
8	5.0	5.0
9	0	0
10	5.0	5.0
11	0	0
12	5.0	5.0
13	0	0
14	9.2	9.2
15	3.1	3.1
16	0	0
17	3.2	3.2
18	0	0
19	3.1	3.1
20	3.1	3.1
21	3.2	3.2
22	0	0
CN5303		
1	-16.3	-16.2
2	-20.8	-20.8
3	-27.4	-27.3
4	0	0
5	0	0
6	10.6	10.6
7	5.1	5.1
8	18.4	18.4
9	29.0	28.9
10	0	0
11	11.7	11.7

<MAIN>

MODE PIN NO.	REC	PLAY
IC1		
1	0	0
2	0	0
3	0	0
4	4.4	4.4
5	2.0	2.1
6	2.6	2.5
7	2.8	2.8
8	1.8	1.4
9	1.9	1.4
10	2.3	1.9
11	2.6	3.0
12	1.8	0.7
13	0	0
14	2.8	2.4
15	2.8	2.8
16	0	3.2
17	2.8	2.8
18	1.9	1.9
19	2.8	2.8
20	0	0
21	2.8	2.8
22	5.0	5.0
23	2.3	2.3
24	0.6	0.6
25	0	0
26	3.0	2.8
27	0.6	0.3
28	0	0.1
29	2.4	2.4
30	2.8	2.9
31	0.4	0.4
32	2.3	2.3
33	2.1	2.2
34	2.0	1.8
35	3.0	3.1
36	2.3	2.3
37	3.0	3.0
38	2.1	2.2
39	1.4	1.5
40	2.1	2.1
41	2.9	2.9
42	2.0	2.0
43	2.0	2.1
44	0	0
45	3.0	3.0
46	3.0	3.0
47	5.0	5.0
48	4.9	5.0
49	3.1	3.1
50	5.0	5.0
51	1.6	1.9
52	4.9	5.0
53	2.6	2.6
54	0	0
55	1.9	2.0
56	0	0
57	0.4	2.2
58	2.3	2.4
59	4.9	5.0
60	4.9	5.0
61	0	0
62	2.3	2.2
63	2.2	2.2
64	2.5	2.6
65	2.3	2.3
66	2.5	2.6
67	2.2	2.2
68	1.2	1.2
69	2.0	2.0
70	2.7	1.9
71	0.7	0.2
72	4.9	5.0
73	4.7	4.7
74	4.7	4.7
75	2.7	2.7
76	2.2	2.2
77	2.8	2.8
78	0	0
79	0.6	2.5
80	2.6	2.5
81	0	0
82	0	0
83	0	2.8
84	5.0	5.0
85	2.3	2.2
86	2.4	2.3
87	2.3	2.2
88	0	0
89	0	0
90	0	0
91	0	0
92	5.0	5.0
93	0.2	0.2
94	2.5	2.5
95	2.5	2.5
96	2.5	2.5
97	0	0
98	2.3	2.5
99	0	0
100	2.6	2.6
IC2201		
1	2.4	2.4

MODE PIN NO.	REC	PLAY
2	0	0
3	2.4	2.4
4	0	0
5	2.5	2.4
6	2.5	2.5
7	2.0	2.0
8	2.5	2.5
9	0	0
10	0	0
11	0	0
12	2.0	2.0
13	2.5	2.5
14	0	0
15	0	0
16	2.5	2.5
17	0.7	0.7
18	2.5	2.5
19	2.5	2.5
20	2.5	0.7
21	2.5	0
22	2.6	0.7
23	0	0
24	2.6	0.7
25	5.0	5.0
26	2.6	0
27	0	2.4
28	4.2	2.8
29	4.2	1.8
30	2.3	1.0
31	1.0	2.3
32	2.5	2.5
33	2.5	2.5
34	0.7	0.8
35	2.5	2.5
36	0	0
37	1.6	1.6
38	0	0
39	0	0
40	5.0	5.0
41	0	0
42	4.7	4.7
43	4.7	4.7
44	0	3.3
45	0	0
46	2.5	2.5
47	2.9	3.0
48	2.5	2.5
49	2.4	2.3
50	2.5	2.5
51	5.0	5.0
52	2.6	2.6
53	4.4	4.3
54	0	0
55	0	0
56	0	0
57	4.4	4.3
58	10.6	10.6
59	4.4	4.4
60	0.4	0.2
61	2.5	2.5
62	2.4	2.4
63	2.6	-
64	2.5	2.5
IC501		
1	0	2.9
2	4.9	4.9
3	0	2.8
4	0	4.9
5	3.7	3.1
6	4.9	4.9
7	2.7	3.1
8	0	2.7
9	2.9	2.9
10	3.3	3.3
11	0	4.9
12	2.1	2.1
13	2.7	2.7
14	2.4	2.4
15	0	0
16	2.2	2.2
17	4.1	2.7
18	3.4	2.2
19	0	0
20	2.9	2
21	0	0
22	0	0
23	0	0
24	2.3	2.3
25	0	0
26	2.3	2.3
27	2.3	2.3
28	2.3	2.3
29	2.3	2.3
30	3.5	3.5
31	2.3	2.3
32	2.3	2.3
33	3.3	3.3
34	4.9	4.9
35	0	0
36	2.4	2.1
37	2.6	2.6
38	2.7	2.7
39	2.7	2.7

MODE PIN NO.	REC	PLAY
40	2.9	2.9
41	1.5	1.5
42	1.9	2.4
43	2.2	2.2
44	2.4	2.4
45	3.1	3.1
46	4.2	4.2
47	2.5	2.5
48	0	0
49	0	2.8
50	-	4.3
51	2.8	2.8
52	2.8	2.8
53	0	4.3
54	0	2.7
55	0	0
56	2.8	2.8
IC1201		
1	1	0
2	0	0
3	0	3.2
4	2	2
5	1.4	1.4
6	0	0
7	3.2	3.2
8	0.6	0.6
9	2.5	2.5
10	1.5	1.5
11	0	0
12	3.2	3.2
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	3.2	3.2
19	0	1.6
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	3.3	3.3
29	0	0
30	1.0	1.0
31	1.5	1.5
32	1.0	1.0
33	0	0
34	11	4
35	9.5	3.3
36	9.4	3.3
37	0	0
38	0	0
39	9.4	3.3
40	0	1.0
41	0.5	0.5
42	0	0
43	1.9	1.6
44	0.5	0
IC2201		
1	5.8	5.9
2	0	0
3	5.8	5.9
4	0	0
5	5.2	5.2
6	0	0
7	5.2	5.2
8	0	0
9	5.8	5.8
10	9.0	9.0
11	5.8	5.8
12	0.2	0
IC3001		
1	0	0
2	2.4	2.4
3	-	2.4
4	-	2.4
5	2.4	2.4
6	0.5	0
7	2.4	2.5
8	0	2.4
9	0	2.1
10	4.8	4.9
11	1.8	1.9
12	1.9	1.9
13	2.7	2.7
14	0.4	0.4
15	0.9	0.9
16	2.9	2.9
17	2.4	2.4
18	5.0	5.0
19	2.4	2.4
20	0	0
21	0	0
22	2.4	2.5
23	0	0
24	1.0	1.9
25	0	0
26	0	2.8
27	0	0

MODE PIN NO.	REC	PLAY
28	4.8	4.8
29	4.8	4.8
30	4.8	4.8
31	4.4	4.4
32	4.2	2.8
33	4.8	4.8
34	0	0
35	0	0
36	4.9	4.9
37	-	-
38	2.7	2.7
39	4.9	4.9
40	4.9	4.9
41	0	0
42	-	-
43	4.7	4.7
44	2.5	2.5
45	0	0
46	4.9	4.8
47	4.8	4.8
48	4.4	4.9
49	3.5	3.9
50	3.8	3.8
51	4.9	0
52	0	0
53	0	0
54	4.9	4.9
55	0	0
56	4.9	4.9
57	0	0
58	0	0
59	0	0
60	0	0
61	4.7	4.7
62	4.7	4.7
63	4.5	4.5
64	0	0
65	4.7	4.7
66	0	0
67	0	0
68	0	0
69	4.8	4.8
70	4.8	4.9
71	0	0
72	4.8	4.8
73	0	0
74	0	0
75	1.5	1.5
76	1.4	1.4
77	-	-
78	2.3	2.3
79	0	0
80	2.4	2.4
81	3.3	3.3
82	4.9	4.9
83	4.8	4.8
84	0	0
85	0	3.3
86	0.3	4.3
87	0.4	0.4
88	0	0
89	4.9	4.9
90	0	0
91	4.8	4.8
92	0.8	0.4
93	4.8	0
94	0	0
95	0.2	0
96	0.4	0
97	0.4	0
98	0.5	0
99	0.4	0
100	0.5	0
101	4.8	4.8
102	0	0
103	4.8	4.8
104	0.5	1.4
105	2.4	2.4
106	0	0
107	2.5	2.5
108	2.6	2.6
109	0	0
110	0	0
111	0.4	0.4
112	4.9	4.9
IC3002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	4.5	4.8
6	0.1	4.0
7	0	0
8	4.9	4.9
IC7102		
1	0	0
2	3.7	3.7
3	10.7	10.6

MODE PIN NO.	REC	PLAY
4	3.5	3.6
5	0	0
6	3.6	3.6
IC7103		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0.5	0.2
12	0.2	0.2
13	0.2	0.2
14	0	0
15	0.8	0.8
16	6.4	6.4
IC7104		
1	5.0	5.0
2	2.4	2.4
3	0.5	5.0
4	1.2	1.2
5	0	0
6	1.4	1.4
7	0	0.5
8	2.4	2.4
9	4.3	4.3
10	1.5	1.5
11	0	0
12	2.4	2.4
13	5.0	5.0
14	2.4	2.4
15	0	0
16	2.4	2.4
17	0	0
18	0.5	2.4
19	0	0
20	1.8	1.8
21	0.5	1.8
22	0.4	0
23	0.4	1.8
24	0	0
25	0	0
26	2.4	2.4
27	0.4	0
28	5.0	5.0
IC8001		
1	0	0
2	1.3	1.3
3	1.3	0.3
4	-7.2	-7.1
5	1.3	1.3
6	1.3	1.3
7	0.4	0.4
8	10.0	10.0
Q7		
E	2.4	2.3
C	2.4	2.3
B	0	0
Q8		
E	2.4	2.3
C	2.4	2.3
B	0	0
Q202	-	-
Q501		
E	2.4	2.4
C	0	0
B	2.5	2.5
Q1201		
E	3.3	3.3
C	4.7	4.7
B	4.0	4.0
Q1202		
E	2.7	2.7
C	0	0
B	0.5	0.5
Q1203		
E	3.2	3.2
C	0	0
B	0.5	0.5
Q1204		
E	1.5	1.5
C	4.8	4.8
B	0.5	2.7
Q1205		
E	1.4	1.4
C	4.7	4.7
B	2.0	0
Q2001		
E	-19.7	0
C	0	0
B	-25.7	0.7
Q2002		
E	-19.7	0
C	0	0
B	-25.3	0.7
Q2003		
E	5.0	5.0
C	-25.4	5.0
B	4.8	0

MODE PIN NO.	REC	PLAY
Q2051		
E	0.2	0
C	8.2	0.1
B	0.2	0.1
Q2052		
E	10.6	10.6
C	10.4	0.3
B	9.8	10.6
Q2053		
E	0	0
C	0	10.6
B	4.8	0
Q2054		
E	10.4	0.2
C	10.2	0
B	9.6	0
Q2055		
E	0	0
C	0	0.2
B	4.8	0
Q2201		
E	5.6	5.6
C	-0.3	-0.1
B	5.5	5.5
Q2202		
E	0	0
C	5.6	5.5
B	0	0
Q2203		
E	0	0
C	0	0
B	-0.3	-0.3
Q2204		
E	0	0
C	0	0
B	-0.4	-0.3
Q3001		
E	0	0
C	4.8	4.8
B	-	-
Q3002		
E	0	0
C	4.4	4.4
B	-	-
Q3004		
E	0	0
C	0	0
B	0.7	0.7
Q3005		
E	4.9	4.8
C	5.6	5.6
B	5.4	5.5
Q3401		
E	3.2	3.1
C	5.5	5.6
B	3.7	3.7
Q3901		
E	0	0
C	4.8	4.9
B	0	0
Q4001		
E	0	0
C	0	0
B	4.8	4.8
Q4002		
E	0	0
C	0	0
B	4.8	4.8
Q4003		
E	0	0
C	0	0
B	4.8	4.8
Q5301		
E	-16.3	-16.3
C	-16.3	-16.3
B	-15.6	-15.6
Q5302		
E	5.6	5.6
C	5.4	5.4
B	0.5	0.4
Q5303		
E	0	0
C	0	0
B	4.8	4.8
Q5304		
E	26.7	26.7
C	28.9	28.9
B	27.3	27.3
Q5305		
E	46.1	45.9
C	46.1	45.9
B	0	0
Q5306		
E	10.6	10.6
C	11.7	11.7
B	11.2	11.2
Q5307		
E	46.1	45.9
C	46.1	45.9
B	0	0.5
Q5308		
E	32.0	31.9
C	31.9	31.9

MODE PIN NO.	REC	PLAY
B	31.3	31.3
Q5309		
E	0	0
C	0	0
B	4.8	4.8
Q5310		
E	5.1	5.1
C	5.6	5.6
B	5.8	5.8
Q5312		
E	5.6	5.6
C	5.5	5.5
B	0.5	0.5
Q5313		
E	-7.9	-7.9
C	-7.9	-7.9
B	-7.1	-7.1
Q6030		
E	2.3	2.3
C	0	0
B	1.7	1.6
Q7113		
E	2.4	2.4
C	0	0
B	1.8	1.8
Q7116		
E	0	0
C	4.3	4.3
B	0	0
Q7191		
E	0.7	0.6
C	0	0
B	0.7	0.5
Q7192		
E	0	0
C	4.6	4.8
B	0	0
Q8001		
E	0	0
C	0	0
B	0	0
Q8051		
E	0	0
C	0	0
B	5.0	5.1
Q8052		
E	0	0
C	5.2	5.2
B	0	0
Q8053		
E	5.5	5.6
C	0	0
B	5.3	5.2
CN1		
1	0	0
2	0	0
3	0	0
4	2.4	2.3
5	2.4	2.3
6	2.4	2.3
7	2.5	0
8	2.5	0
9	2.5	0
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.3	2.4
6	2.5	2.4
CN2002		
1	0	0
2	0	0
CN3001		
1	2.2	2.2
2	26.8	26.8
3	5.0	5.0
4	0	0
5	9.9	9.9
6	0	0
7	0	0
8	11.6	11.6
9	2.6	2.6
10	2.5	2.5
11	1.4	1.4
12	2.5	2.5
CN3102		
1	-27.3	-27.3
2	4.8	4.8
3	4.8	4.8
4	0	0
5	0	0
6	4.8	4.8
7	4.8	4.8
8	4.7	4.7
9	0	0
10	2.9	2.9
11	3.0	3.0
12	1.7	1.9

MODE PIN NO.	REC	PLAY
13	0	0
14	0	0
CN3103		
1	0	0
2	0	0
3	0	0
4	3.2	3.2
5	0	0
6	3.1	3.1
7	3.2	3.2
8	3.1	3.1
9	3.1	3.1
10	0	0
11	0	0
12	3.1	3.1
13	-16.4	-16.3
14	-20.8	-20.7
CN3901		
1	0	0
2	4.9	4.9
3	0	0
4	4.9	4.9
5	0	0
6	4.7	4.7
CN5311		
1	46.1	45.9
2	5.5	5.6
3	0	0
4	0	0
5	3.3	3.3
6	3.1	3.1
7	3.2	3.2
8	3.1	3.1
9	3.1	3.1
10	3.2	3.2
11	0	0
CN5313		
1	-16.3	-16.2
2	-20.8	-20.7
3	-27.4	-27.3
4	0	0.4
5	0	0
6	10.6	10.6
7	5.1	5.1
8	18.4	18.4
9	29.0	28.9
10	0	0
11	11.7	11.7
CN7101		
1	0.8	0.8
2	0	0
3	2.5	2.5
4	0	0
5	2.5	2.5
6	4.8	4.8
7	0	0
8	0	0
9	1.0	1.0
10	0	0
11	3.9	3.8
12	3.6	4.1
13	10.7	10.6
14	18.4	18.4
15	5.5	5.6
CN7103		
1	-	-
2	-	-
3	-	-
4	-	-
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN7301		
1	2.3	2.3
2	0.6	0.6
3	2.3	2.3
4	0.3	0.3
5	0	0
6	0.7	0.7
7	2.4	2.3
8	0.6	0.6
9	2.3	2.3
10	0	0
11	0	0
12	0	0
13	0.4	0.4
14	0	0
15	0.4	0.3
16	0	0
17	0	0
18	0	0
19	3.2	3.2
20	0	0
21	1.6	1.6
22	0.4	0.4

<DISPLAY>

MODE PIN NO.	REC	PLAY
IC7001		
1	3.0	3.0
2	0	0
3	2.9	2.9
4	0	0
5	0	0
6	0	0
7	0	0
8	3.1	3.1
9	1.5	1.5
10	1.4	1.4
11	0	0
12	0	0
13	3.1	3.1
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	3.1	3.1
25	0	0
26	3.0	3.0
27	0	0
28	0	0
29	2.6	2.6
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	1.7	1.9
37	3.2	3.2
38	0	0
39	0	3.1
40	0	0
41	3.2	3.2
42	3.1	3.1
43	0	0
44	3.1	3.1
45	0	0
46	0	0
47	0	0
48	0	0
49	0	0
50	0	0
51	2.7	2.6
52	-25.3	-25.3
53	-25.1	-25.0
54	-25.1	-25.0
55	-25.2	-25.2
56	-25.2	-25.2
57	-25.2	-25.2
58	-25.2	-25.2
59	-25.2	-25.2
60	-25.2	-25.2
61	-25.2	-25.2
62	-25.2	-25.2
63	-25.2	-25.2
64	-25.3	-25.3
65	-27.1	-27.0
66	-27.1	-27.0
67	-27.0	-27.0
68	-27.0	-27.0
69	-27.0	-27.0
70	-27.0	-27.0
71	-27.0	-27.0
72	-27.0	-27.0
73	0.5	0
74	0	0
75	0.5	0.4
76	0.5	0.4
77	-10.5	-19.8
78	-27.0	-27.0
79	-27.0	-27.0
80	-27.0	-27.0
81	-	-24.6
82	-10.5	-17.6
83	-15.1	-17.6
84	-	-19.9
85	-22.1	-22.1
86	-27.1	-27.0
87	-27.0	-24.6
88	-24.6	-24.6
89	-	-22.2
90	-	-17.5
91	-	-19.9
92	0	0.2
93	0	0.3
94	0	0.3
95	0	0.3
96	0	0.3
97	0	0.3
98	0	0.2
99	0	0.3
100	-27.4	-27.3

MODE PIN NO.	REC	PLAY
IC7002		
1	4.8	4.8
2	4.8	4.8
3	0	0
IC7003		
1	4.8	4.8
2	4.8	4.8
3	0	0
4	0	3.0
5	4.8	4.9
6	0	4.7
7	0	0
8	4.9	4.7
9	4.8	4.8
10	4.8	4.9
11	0	0
12	4.8	0
13	0	4.8
14	4.8	4.8
Q7003		
E	0	0
C	0.1	0.3
B	2.6	2.6
Q7004		
E	0	0
C	0.1	0.1
B	2.6	2.6
CN7003		
1	0	0
2	0	0
3	-	1.9
4	3.0	3.0
5	2.9	2.9
6	0	0
7	4.6	4.7
8	4.8	4.8
9	4.8	4.9
10	0	0
11	0	0
12	4.8	4.8
13	4.8	4.8
14	-27.4	-27.3
CN7004		
1	-20.8	-20.7
2	-16.4	-16.3
3	3.1	3.1
4	0	0
5	0	0
6	3.1	3.1
7	3.1	3.1
8	3.2	3.2
9	3.1	3.1
10	0	0
11	3.2	3.2
12	0	0
13	0	0
14	0	0

<JACK>

MODE PIN NO.	REC	PLAY
CN7191		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0

<DVD>

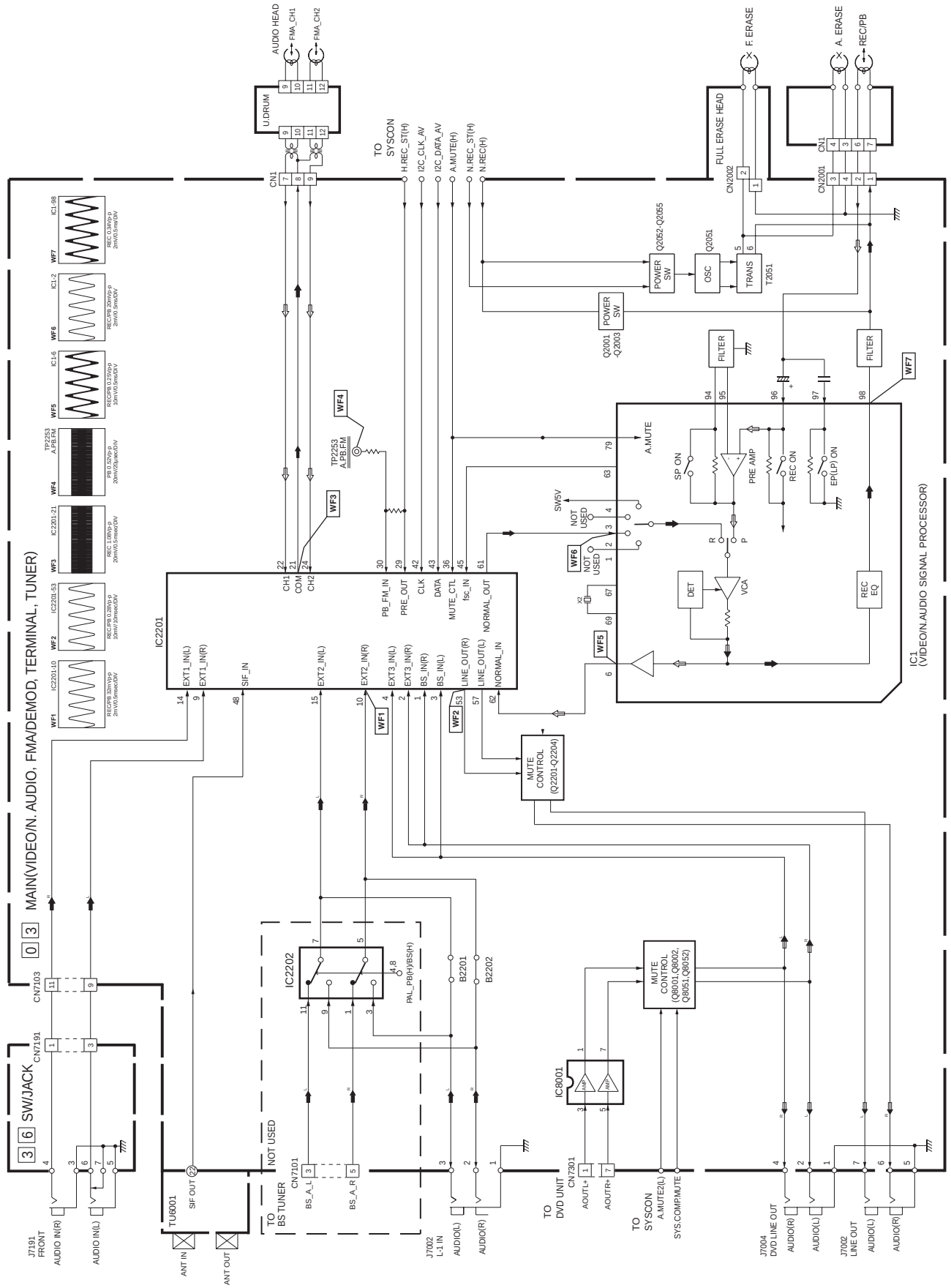
MODE PIN NO.	DC
IC101	
1	0
2	4.4
3	3.7
4	4.4
5	0
6	1.7
7	1.7
8	1.9
9	3.3
10	0
11	3.3
12	3.3
13	3.3
14	3.3
15	0
16	1.7
17	1.5
18	1.7
19	1.7
20	0
21	1.7
22	0
23	1.7
24	0.9
25	1.7
26	0
27	0
28	4.9
29	1.7
30	0
31	0
32	0
33	0
34	0
35	0.9
36	3.3
37	1.3
38	0.9
39	3.3
40	3.3
41	1.7
42	1.7
43	1.7
44	1.0
45	1.7
46	2.1
47	2.1
48	2.1
49	2.1
50	2.1
51	2.1
52	2.1
53	2.1
54	2.1
55	4.9
56	2.1
57	2.1
58	2.1
59	2.1
60	2.1
61	0
62	2.1
63	2.1
64	1.6
IC201	
1	1.7
2	1.7
3	1.7
4	1.7
5	1.7
6	1.7
7	1.7
8	0
9	3.2
10	5.0
11	2.5
12	2.5
13	2.5
14	2.5
15	4.3
16	4.3
17	4.3
18	4.3
19	9.2
20	0
21	0
22	1.7
23	1.7
24	1.7
25	0
26	0
27	1.7
28	9.2
29	1.7
30	9.2
IC251	
1	0.8
2	0.8
3	0.8
4	0.8

MODE PIN NO.	DC
5	0
6	0
7	0.8
8	0
9	5.0
10	5.0
11	5.0
12	5.0
13	5.0
14	5.0
15	0
16	0
17	0
18	0
19	5.0
20	5.0
21	1.67
22	1.67
23	0
24	3.3
25	5.0
26	0
27	9.2
28	9.2
29	0
30	0
IC301	
1	0
2	2.9
3	3.3
4	0
5	3.3
6	3.3
7	2.7
8	0
9	0
10	0
11	3.3
12	3.3
13	3.3
14	0
15	1.4
16	0.3
17	1.4
18	1.7
19	0
20	1.9
21	0
22	2.2
23	2.2
24	1.7
25	1.5
26	1.5
27	1.5
28	1.5
29	1.5
30	0.5
31	3.3
32	0
33	3.3
34	3.3
35	3.3
36	3.3
37	0
38	0
39	0
40	0
41	0
42	0
43	1.0
44	0
45	1.5
46	0
47	3.3
48	0
49	3.1
50	3.1
51	3.3
52	3.3
53	0.9
54	1.0
55	3.1
56	3.1
57	3.3
58	1.9
59	0
60	0
61	0.8
62	0.8
63	0.7
64	1.6
65	1.7
66	1.7
67	1.7
68	1.7
69	3.3
70	3.1
71	1.0
72	3.1
73	1.0
74	3.1

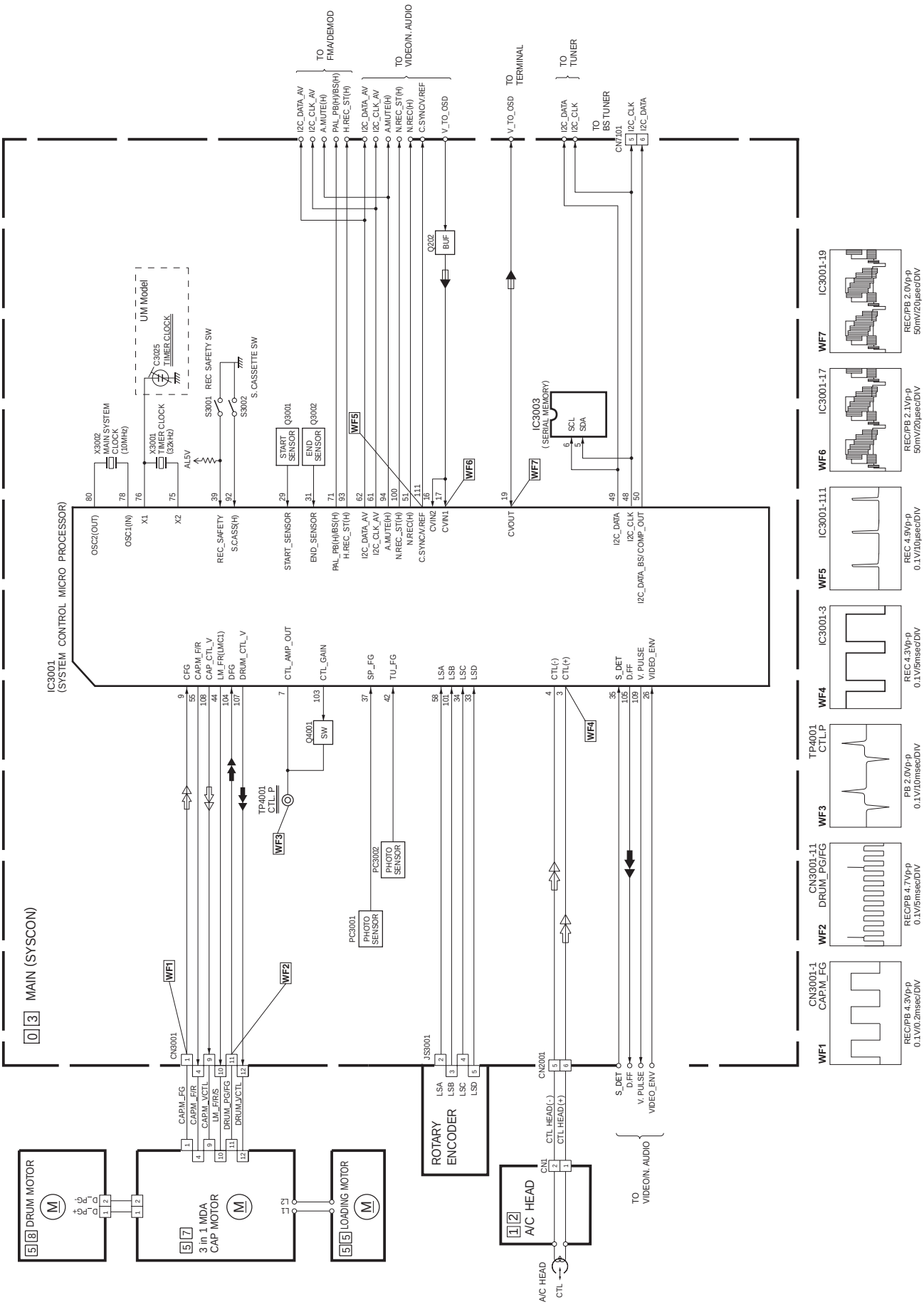
MODE PIN NO.	DC
75	1.0
76	1.7
77	0
78	3.3
79	1.7
80	0
81	0
82	0.8
83	2.1
84	1.7
85	0
86	1.4
87	1.4
88	3.3
89	0
90	1.6
91	1.6
92	1.2
93	1.6
94	0
95	0.7
96	1.6
97	1.7
98	1.6
99	3.3
100	0.7
101	0.7
102	0
103	1.4
104	2.1
105	2.1
106	1.7
107	0.7
108	0.7
109	3.3
110	1.7
111	1.7
112	0
113	0
114	1.7
115	1.7
116	3.3
117	1.7
118	1.7
119	1.7
120	1.7
121	2.1
122	1.7
123	2.1
124	1.0
125	3.3
126	0
127	0
128	0
129	0
130	0
131	2.5
132	0
133	0
134	0
135	0
136	1.7
137	3.3
138	0
139	3.3
140	0
141	0
142	0
143	3.3
144	0
145	
146	1.7
147	3.3
148	
149	0
150	0
151	0
152	1.7
153	0
154	1.7
155	0
156	3.3
157	0
158	0
159	0
160	0
161	0
162	3.3
163	0
164	0
165	0
166	0
167	0
168	0
169	3.2
170	3.2
171	0
172	0
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0
181	3.2
182	3.2
183	0
184	0
185	3.2
186	0
187	0
188	0
189	3.2
190	0
191	0
192	1.7
193	3.2
194	0.6
195	2.9
196	3.2
197	3.2
198	3.2
199	3.2
200	3.2
201	0
202	3.2
203	3.2
204	0
205	3.4
206	3.2
207	3.2
208	3.3
209	3.3
210	3.2
211	3.3
212	1.7
213	3.2
214	3.2
215	0
216	0
217	3.2
218	0
219	3.2
220	3.2
221	0
222	3.2
223	3.2
224	3.2
225	0
226	0
227	0.8
228	0
229	0.8
230	0
231	0.8
232	0.6
233	3.2
234	0.6
235	0.8
236	1.0
237	0
238	0.4
239	0.8
240	0.8
IC505	
1	3.2
2	0.8
3	3.2
4	0.8
5	0.5
6	0
7	0.6
8	0.6
9	3.2
10	0.8
11	1.0
12	0
13	0.4
14	0
15	3.2
16	0
17	3.2
18	0
19	3.2
20	2.2
21	0
22	2.0
23	1.3
24	0
25	1.2
26	2.5
27	0.5
28	1.0
29	3.2
30	0
31	0.4
32	0
33	0.4
34	0.4
35	3.2
36	0.4
37	0.4
38	0
39	0.5
40	0.5
41	3.2
42	3.2
43	3.2
44	0
45	0.4
46	0
47	0.4
48	0.4
49	3.2
50	0.4
51	0.5
52	0
53	0.5
54	0.7
55	3.2
56	0.7
57	0.6
58	0
59	0
60	1.7
61	1.4
62	0.4
63	1.3
64	1.3
65	2.0
66	0
67	3.2
68	1.7
69	0
70	0
71	0
72	0
73	0
74	0
75	3.2
76	0.4
77	0.4
78	0
79	0
80	0.4
81	3.2
82	0.5
83	0.8
84	0
85	0.8
86	0
IC509	
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	3.2
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	3.2
25	0
26	3.2
27	0
28	3.2
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	3.2
38	0
39	0
40	0

MODE PIN NO.	DC
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	0
IC511	
1	0
2	1.8
3	3.2
IC512	
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	3.2
IC513	
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	3.2

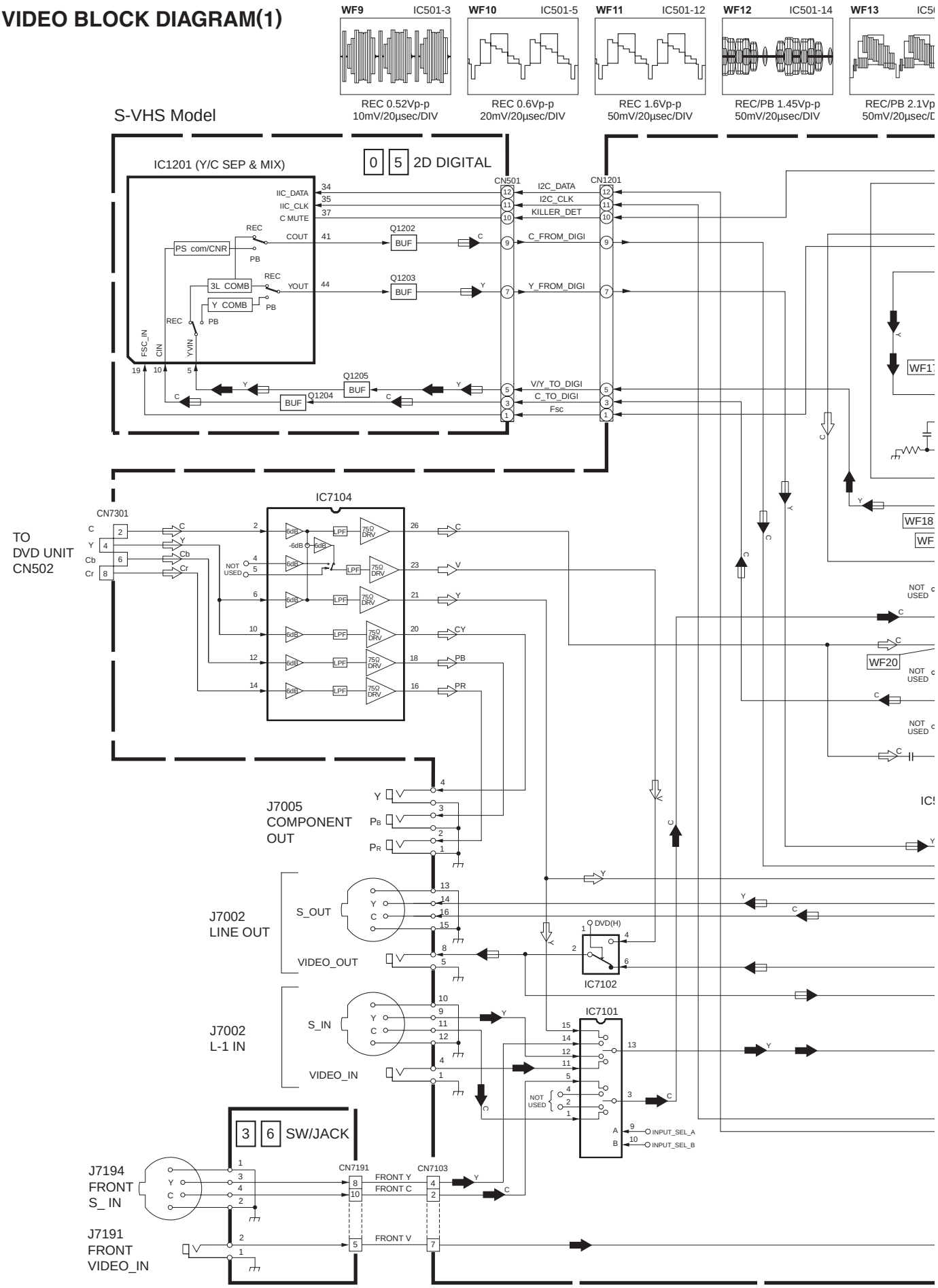
■ AUDIO BLOCK DIAGRAM

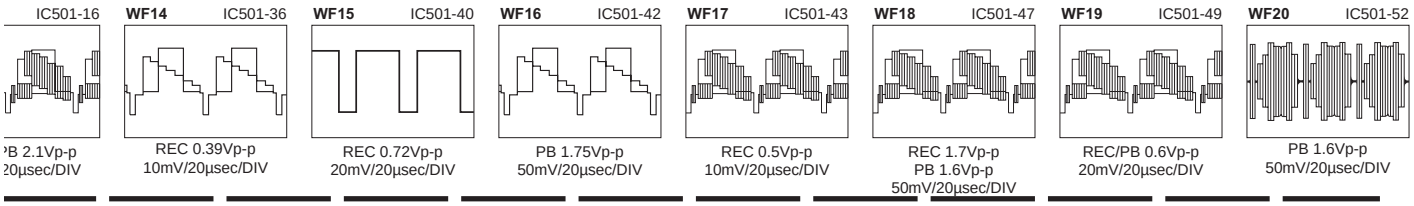


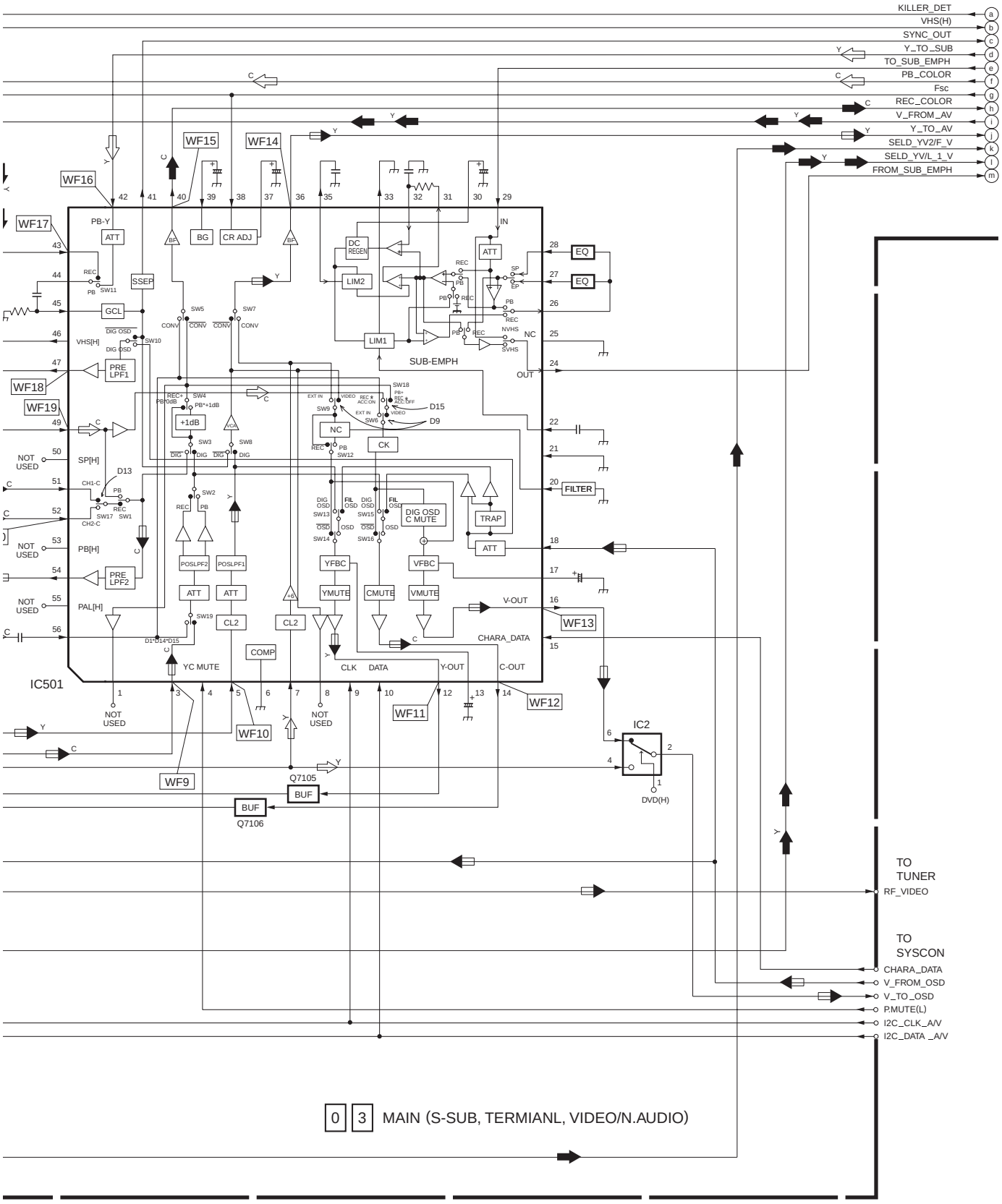
■ SYSTEM CONTROL BLOCK DIAGRAM



■ VIDEO BLOCK DIAGRAM(1)

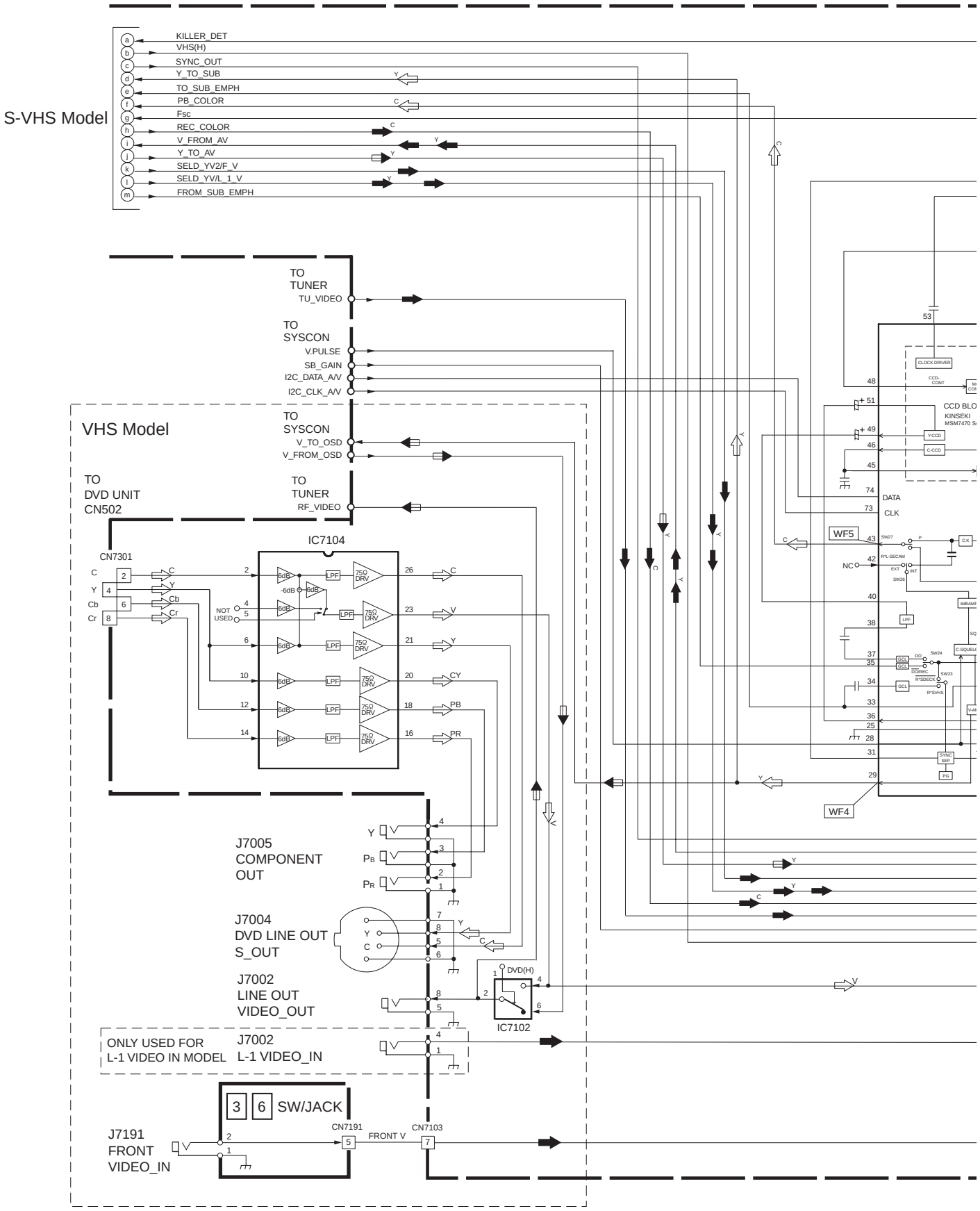


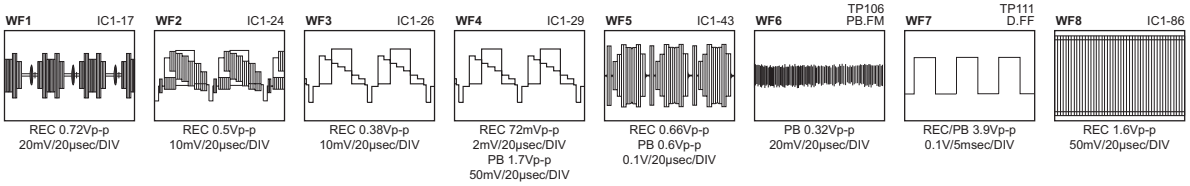


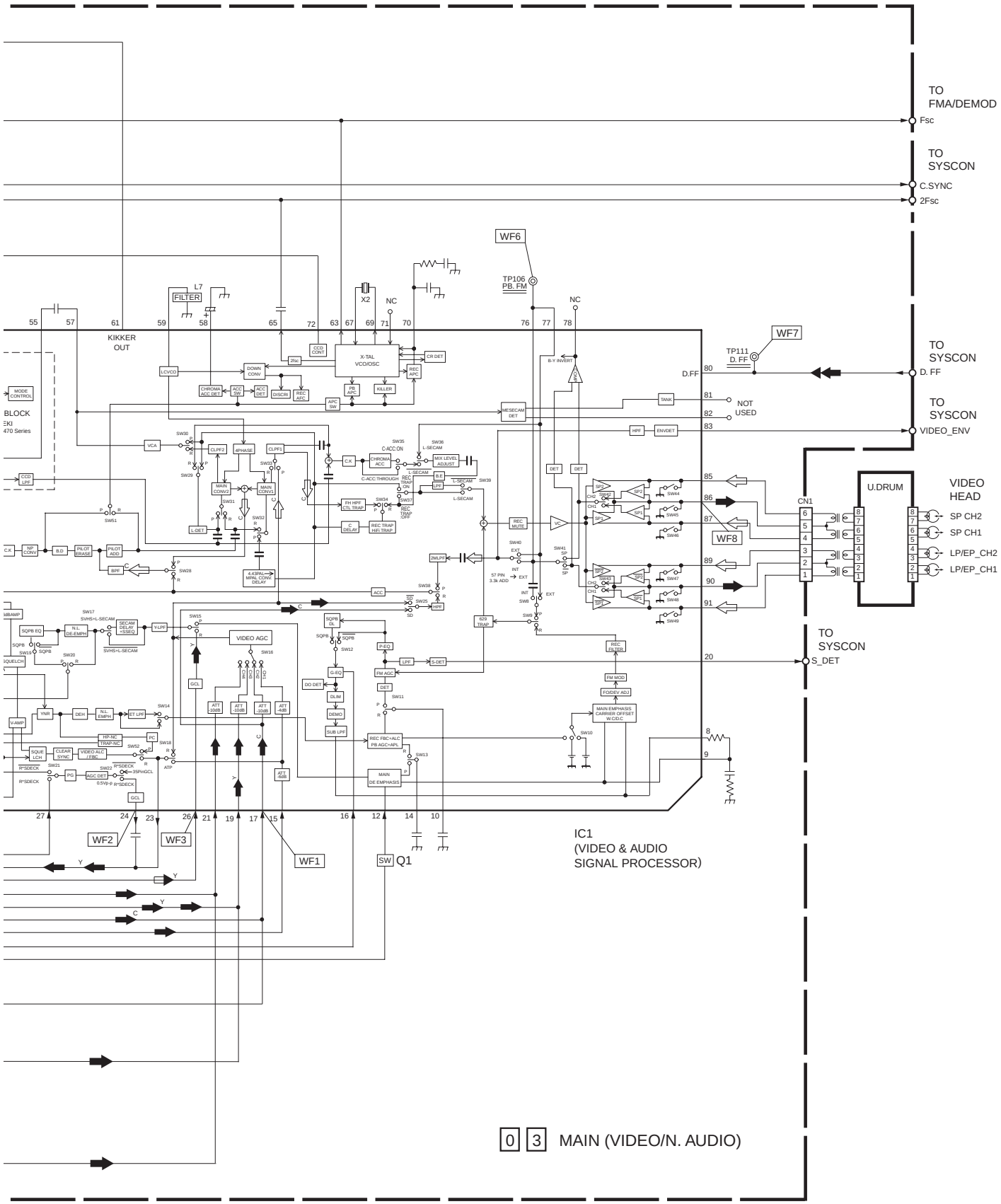


0 3 MAIN (S-SUB, TERMIANL, VIDEO/N.AUDIO)

■ VIDEO BLOCK DIAGRAM(2)




WF1
IC1-17
REC 0.72Vp-p
20mV/20µsec/DIV
WF2
IC1-24
REC 0.5Vp-p
10mV/20µsec/DIV
WF3
IC1-26
REC 0.38Vp-p
10mV/20µsec/DIV
WF4
IC1-29
REC 72mVp-p
2mV/20µsec/DIV
PB 1.7Vp-p
50mV/20µsec/DIV
WF5
IC1-43
REC 0.66Vp-p
PB 0.6Vp-p
0.1V/20µsec/DIV
WF6
TP106
PB.FM
PB 0.32Vp-p
20mV/20µsec/DIV
WF7
TP111
D.FF
REC/PB 3.9Vp-p
0.1V/5msec/DIV
WF8
IC1-86
REC 1.6Vp-p
50mV/20µsec/DIV


TO FMA/DEMOD
Fsc
TO SYSCON
C.SYNC
2Fsc
TO SYSCON
D. FF
TO SYSCON
VIDEO_ENV
TO SYSCON
S_DET
NOT USED
VIDEO HEAD
SP CH2
SP CH1
LP/EP_CH2
LP/EP_CH1
U.DRUM
CN1
WF1
WF2
WF3
WF6
WF7
WF8
IC1
(VIDEO & AUDIO
SIGNAL PROCESSOR)
SW Q1
0 3 MAIN (VIDEO/N. AUDIO)

■ CPU PIN FUNCTION

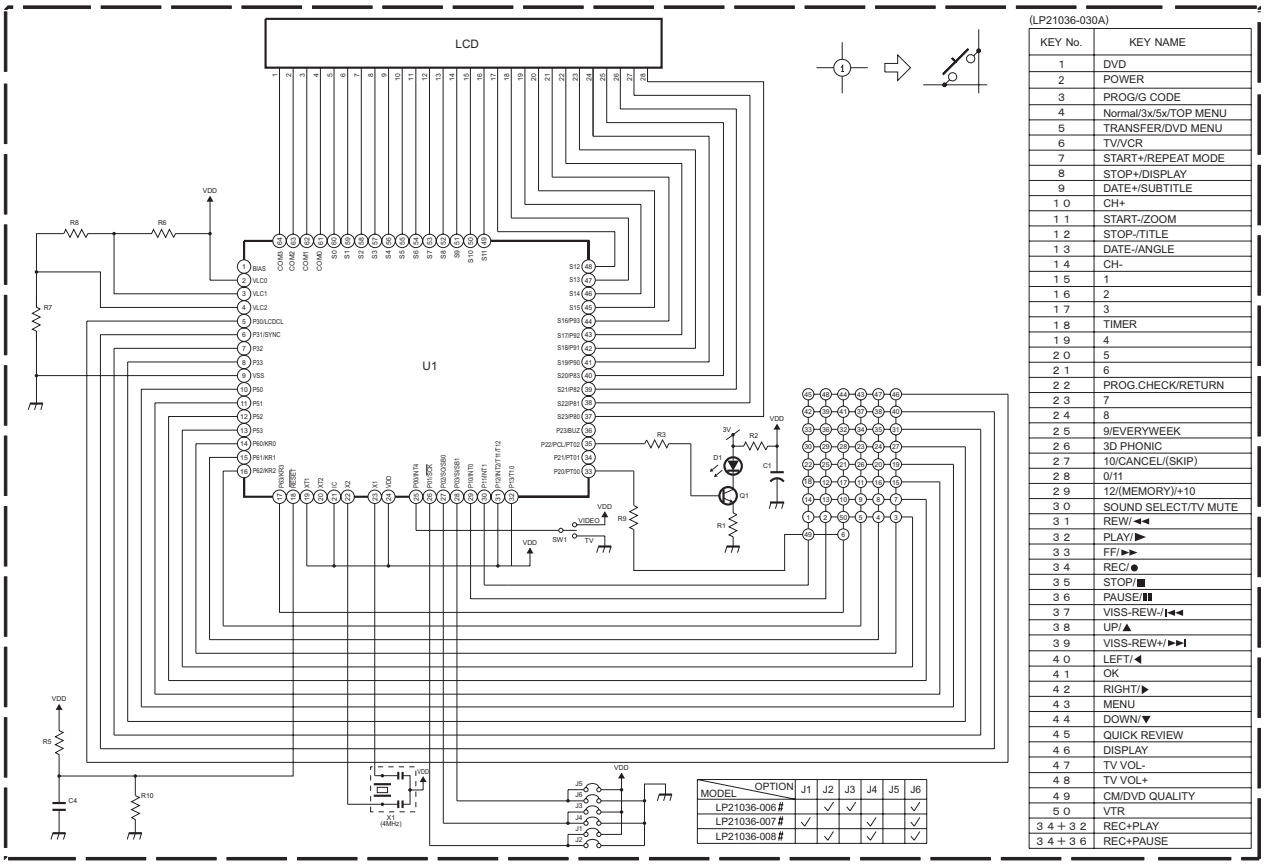
<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	SVss	-	GND
2	CTLREF	-	CTL REFERENCE VOLTAGE
3	CTL(+)	IN/OUT	CTL(+) SIGNAL
4	CTL(-)	IN/OUT	CTL(-) SIGNAL
5	CTLBIAS	-	CTL BIAS VOLTAGE
6	CTLFB	IN	CTL PULSE FEEDBACK
7	CTLAMPOUT	OUT	CTL PULSE OUTPUT
8	CTLSMTIN	IN	CTL PULSE INPUT
9	CFG	IN	CAPSTAN FG PULSE INPUT
10	SVcc	-	SYSTEM POWER
11	AFCpc	-	AFC CLOCK(SYNC SEPARATOR FOR OSD/EXTERNAL CIRCUIT FOR AFC)
12	AFCosc	-	AFC CLOCK(SYNC SEPARATOR FOR OSD/EXTERNAL CIRCUIT FOR AFC)
13	AFCLPF	-	FILTER OUTPUT FOR HORIZONTAL SYNCHRONIZING OF OSD CHARACTER
14	CSYNC/HSYNC	-	NOT USED
15	VLPF/VSYNC	-	NOT USED
16	CVIN2	IN	COMPOSITE VIDEO SIGNAL INPUT(2)
17	CVIN1	IN	COMPOSITE VIDEO SIGNAL INPUT(1)
18	OVCC	-	SYSTEM POWER
19	CVOUT	OUT	COMPOSITE VIDEO SIGNAL OUTPUT
20	OVSS	-	GND
21	FSOUT	OUT	FSC OUTPUT FOR OSD
22	FSCIN	IN	FSC INPUT FOR OSD
23	Avss	-	GND FOR ANALOG CIRCUIT
24	BS_ANT/AFC	IN	TUNING CHECK
25	LED	IN	DETECT THE HTS MODE
26	VIDEO_ENV	IN	AUDIO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
27	WIDE_DET	IN	WIDE ASPECT DETECTION
28	KEY2	IN	OPERATION CONTROL SIGNAL
29	START_SENSOR	IN	START SENSOR
30	KEY1	IN	OPERATION CONTROL SIGNAL
31	END_SENSOR	IN	END SENSOR
32	A.ENV/ND(L)	IN	AUDIO PB FM ENV.INPUT/NON HiFi MODEL:L
33	LSD	IN	MECHANISM MODE DETECT(D)
34	LSC	IN	MECHANISM MODE DETECT(C)
35	S_DET	IN	Hi-Fi/NORMAL AUDIO DETECTION
36	Avcc	-	ANALOG POWER
37	SP_FG	IN	DETECTION SIGNAL FOR SUPPLY REEL RATATION/TAPE REMAIN
38	JUST_CLK/CH_SW	OUT	RF CONVERTER CHANNEL SELECT
39	REC_SEFETY	IN	REC SAFETY SWITCH DETECT(SW ON:L)
40	NC	-	NOT USED
41	CONV.CTL[H]	OUT	RF CONVERTER DETECTION
42	TU_FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
43	SUB_RESET	-	NOT USED
44	LM_FR(LMC1)	OUT	LOADING MOTOR DRIVE(1)
45	BIT_IN[H]	-	NOT USED
46	BS_P.CTL[H]	-	NOT USED
47	P.SAVE[L]	OUT	POWER SAVE MODE:L
48	12C_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
49	12C_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
50	12C_DATA_BS/COMPU_OUT	-	NOT USED
51	N.REC[H]	OUT	NORMAL AUDIO REC MODE:H
52	ANT_CTL[L]	-	NOT USED
53	S1OUT	OUT	ADD THE DC BIAS TO S1 OUTPUT
54	TU_V_MUTE[H]	OUT	TUNER VIDEO MUTE CONTROL(MUTE:H)
55	CAP.M_F/R	OUT	CAPSTAN MOTOR REVERSE CONTROL(FWD : H / REV : L)
56	Vcc	-	SYSTEM POWER

PIN NO.	LABEL	IN/OUT	FUNCTION
57	Vss	-	GND
58	LSA	IN	MECHANISM MODE DETECT(A)
59	INT/PRG	OUT	INTERACE/PROGRESSIVE SELECT
60	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
61	12C_CLK_AV	OUT	SERIAL DATA TRASFER CLOCK FOR THE VIDEO/AUDIO IC
62	12C_DATA_AV	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
63	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN
64	S.DATA_FR_SYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN
65	S.DATA_TO_SYS	IN	SERIAL DATA TRANSFER OUTPUT FROM THE ON-SCREEN IC TO THE FDP DRIVER
66	INPUT_SEL_B	OUT	INPUT SELECT:B
67	INPUT_SEL_A	OUT	INPUT SELECT:A
68	NC	-	NC
69	BS_DIGI/R.P/COMP_IN	IN	REMOTE PAUSE/COMPULINK SIGNAL INPUT
70	P.MUTE[L]	OUT	PICTURE MUTE CONTROL(MUTE ON:H)
71	PAL_PB[H]/BS[H]	-	NOT USED
72	RC	IN	REMOTE CONTROL DATA INPUT
73	ET_REC[H]	OUT	S-VHS ET REC MODE:H
74	FEW	-	NOT USED
75	X2	-	TIMER CLOCK(32kHz)
76	X1	-	TIMER CLOCK(32kHz)
77	RES	-	RESET TERMINAL(RESET ON:L)
78	OSC1(IN)	-	MAIN SYSTEM CLOCK(10MHz)
79	Vss	-	GND
80	OSC2(OUT)	-	MAIN SYSTEM CLOCK(10MHz)
81	VCL	-	NOT USED
82	MODE	-	NOT USED
83	HS_FFREW	OUT	HIGH SPEED FF/REW CONTROL
84	NC	-	NC
85	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
86	PROTECT	IN	DETECTION SIGNAL FOR SWITCHING POWER SUPPLY
87	A.MUTE2[L]	OUT	AUDIO MUTE CONTROL(MUTE ON:H)
88	SP_SHORT[H]	OUT	MODE SELECT
89	VP.CTL/EP_SHORT[H]	OUT	V.PILSE ADDITION TIMING CONTROL/MODE SELECT
90	TRICK[H]	IN	SLOW/STILL MODE:H
91	P.CTL[H]	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
92	S.CASS[H]	OUT	DETECTION FOR S-VHS CASSETTE(DETECTION:H)
93	H.REC_ST[H]	OUT	Hi-Fi AUDIO SOUND RECORDING START
94	A.MUTE[H]	OUT	AUDIO MUTE CONTROL(MUTE ON:H)
95	BIAS_FOR_C_OUT	OUT	ADD THE DC BIAS TO C_OUT
96	CHARAE	OUT	CHARACTER DATA OF OSD
97	SLOW_PULSE	-	NOT USED
98	SUB_REQ[L]	OUT	REQUEST TO IC701 OF DISPLAY BOARD
99	CHARAM	OUT	CHARACTER DATA OF OSD
100	N_REC ST[H]	OUT	NORMAL AUDIO SOUND RECORDING START
101	LSB	IN	MECHANISM MODE DETECT(B)
102	DVD[H]	OUT	DVD MODE:H
103	CTL_GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
104	DFG	IN	DRUM GF PULSE INPUT
105	D.FF	OUT	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
106	A.FF	OUT	AUDIO FF OUTPUT
107	DRUM_CTL_V	OUT	DRUM MOTOR CONTROL
108	CAP_CTL_V	OUT	CAPSTAN MOTOR CONTROL
109	V.PULSE	OUT	V.PULSE ADDITION CONTROL
110	Vss	-	GND
111	C.SYNC/V.REF	IN	COMPOSITE SYNC/
112	Vcc	-	SYSTEM POWER

■ REMOTE CONTROLLER SCHEMATIC DIAGRAM

NOTE :
1. All parts shown in this schematic are ciritical for sefety.
2. This schematic is only for reference.
   Avoid replacing individual parts.
   Replace the entire unite only.

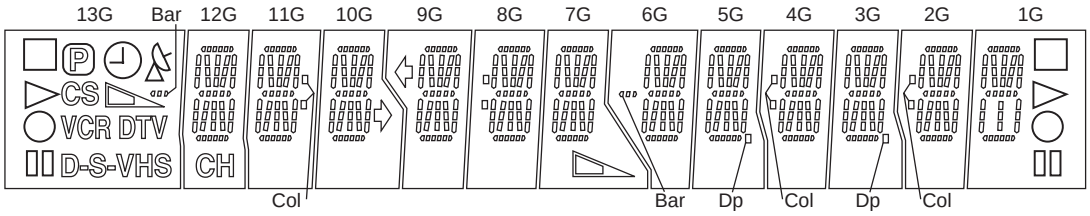


MODEL \ OPTION	J1	J2	J3	J4	J5	J6
LP21036-006#		✓	✓			✓
LP21036-007#	✓			✓		✓
LP21036-008#		✓		✓		✓

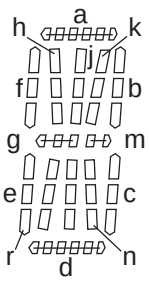
(LP21036-030A)

KEY No.	KEY NAME
1	DVD
2	POWER
3	PROG/G CODE
4	Normal/3x/5x/TOP MENU
5	TRANSFER/DVD MENU
6	TV/VCR
7	START+/REPEAT MODE
8	STOP+/DISPLAY
9	DATE+/SUBTITLE
10	CH+
11	START-/ZOOM
12	STOP-/TITLE
13	DATE-/ANGLE
14	CH-
15	1
16	2
17	3
18	TIMER
19	4
20	5
21	6
22	PROG.CHECK/RETURN
23	7
24	8
25	9/EVERYWEEK
26	3D PHONIC
27	10/CANCEL/(SKIP)
28	0/11
29	12/(MEMORY)/+10
30	SOUND SELECT/TV MUTE
31	REW/◄◄
32	PLAY/►
33	FF/►►
34	REC/●
35	STOP/■
36	PAUSE/▮▮
37	VISS-REW-/▮◄◄
38	UP/▲
39	VISS-REW+/►►▮
40	LEFT/◄
41	OK
42	RIGHT/►
43	MENU
44	DOWN/▼
45	QUICK REVIEW
46	DISPLAY
47	TV VOL-
48	TV VOL+
49	CM/DVD QUALITY
50	VTR
34+32	REC+PLAY
34+36	REC+PAUSE

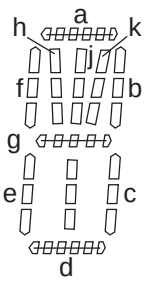
■ FDP GRID ASSIGNMENT AND ANODE CONNECTION



	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	□	a	a	a	a	a	a	a	a	a	a	a	a
P2	Ⓟ	b	b	b	b	b	b	b	b	b	b	b	b
P3	◴	f	f	f	f	f	f	f	f	f	f	f	f
P4	⅄	h	h	h	h	h	h	h	h	h	h	h	h
P5	▷	j	j	j	j	j	j	j	j	j	j	j	j
P6	CS	k	k	k	k	k	k	k	k	k	k	k	k
P7	Bar	CH	Col	◊	◊	Col	◺	Col	Dp	Col	Dp	Col	□
P8	◺	g	g	g	g	g	g	g	g	g	g	g	g
P9	○	m	m	m	m	m	m	m	m	m	m	m	▷
P10	VCR	c	c	c	c	c	c	c	c	c	c	c	c
P11	DTV	e	e	e	e	e	e	e	e	e	e	e	e
P12	▯▯	r	r	r	r	r	r	r	r	r	r	r	○
P13	D-	p	p	p	p	p	p	p	p	p	p	p	p
P14	S-	n	n	n	n	n	n	n	n	n	n	n	▯▯
P15	VHS	d	d	d	d	d	d	d	d	d	d	d	d



(2G-12G)



(2G-12G)

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

DIVISION OF JVC AMERICAS CORP.

www.jvcservice.com(US Only)

JVC CANADA INC.

Head office : 21 Finchdene Square Scarborough, Ontario M1X 1A7 (416)293-1311

JVC®

(No.YD001)

Printed in Japan
WPC

PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

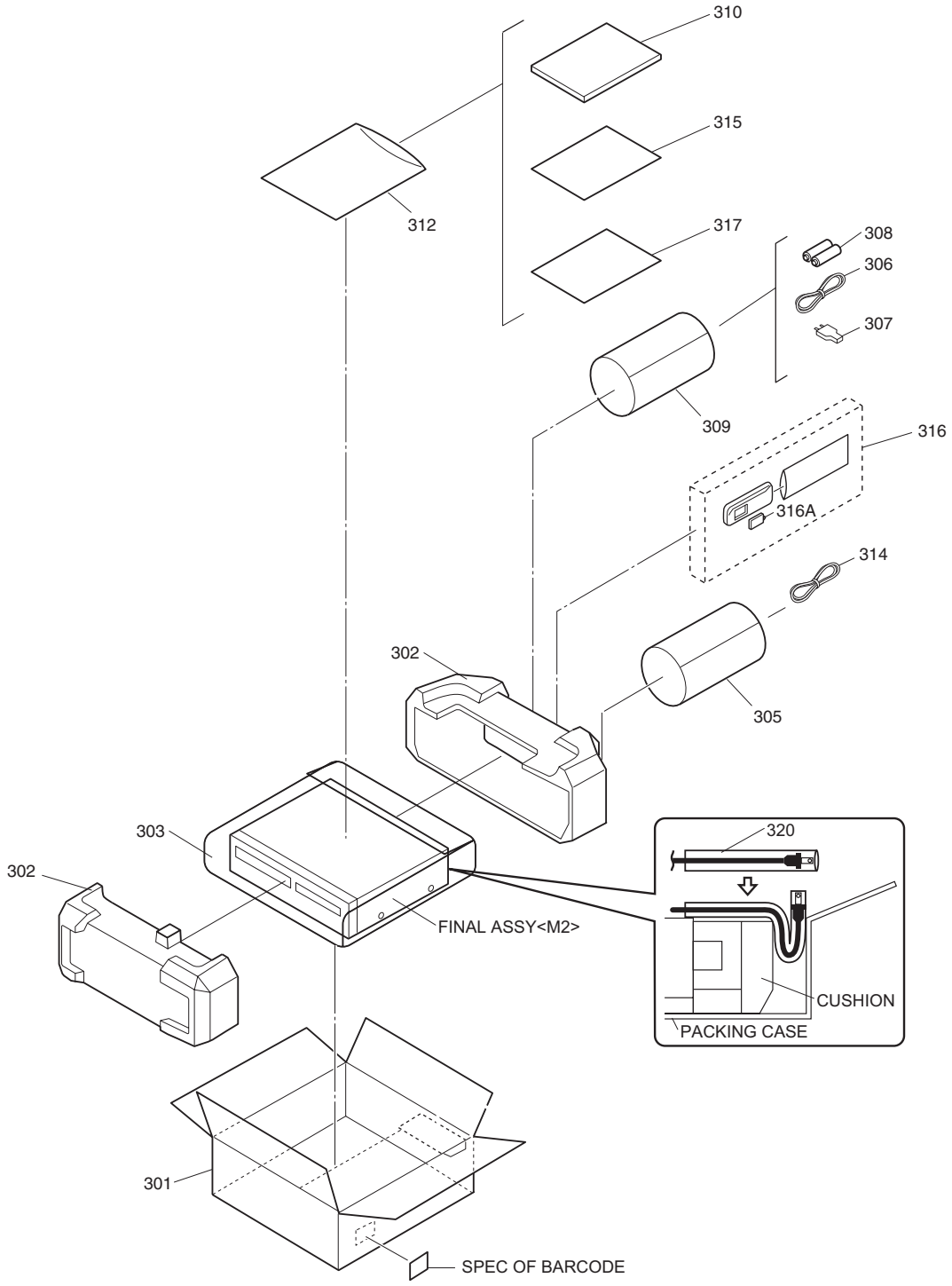
BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

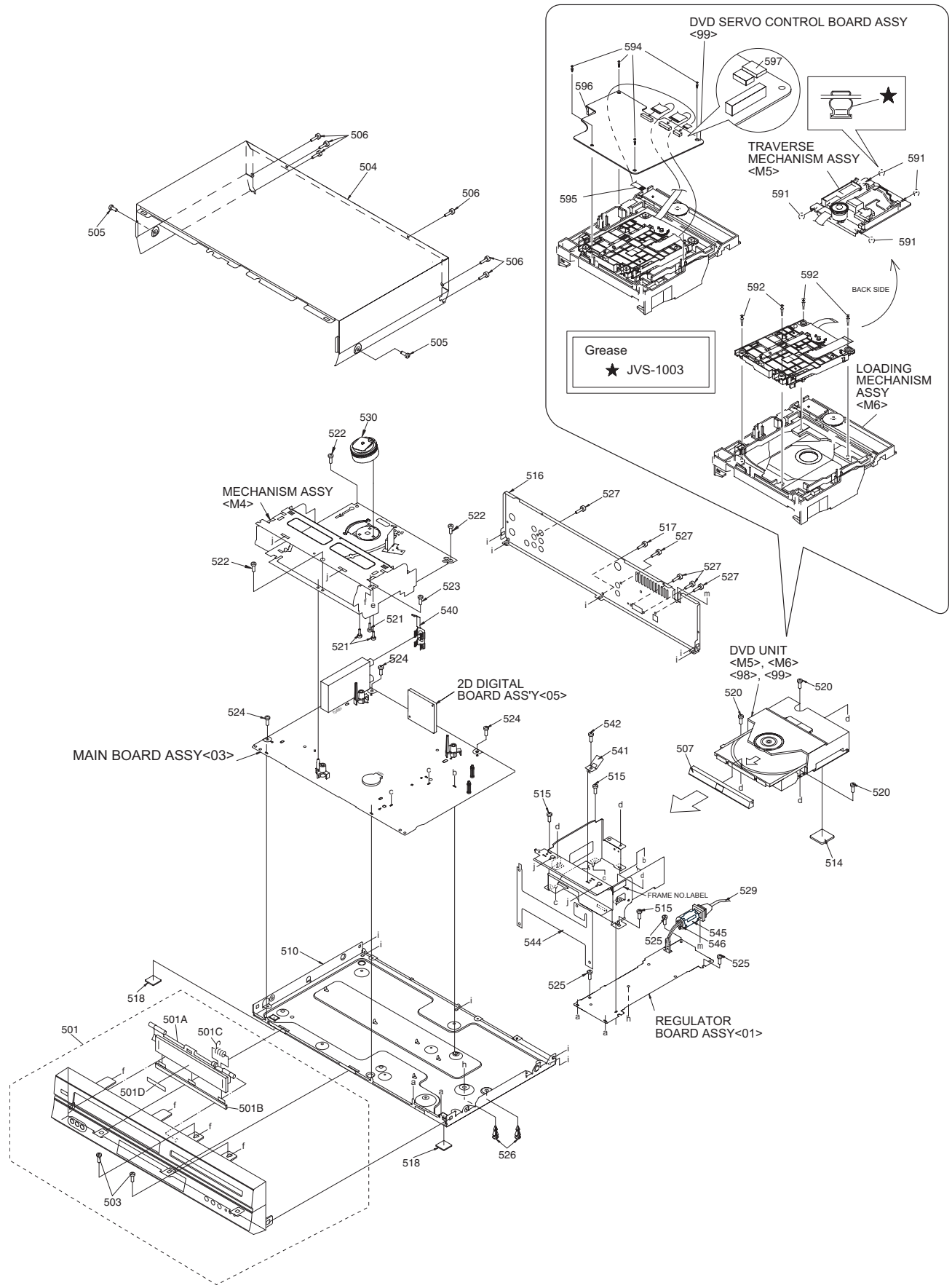
1. EXPLODED VIEW

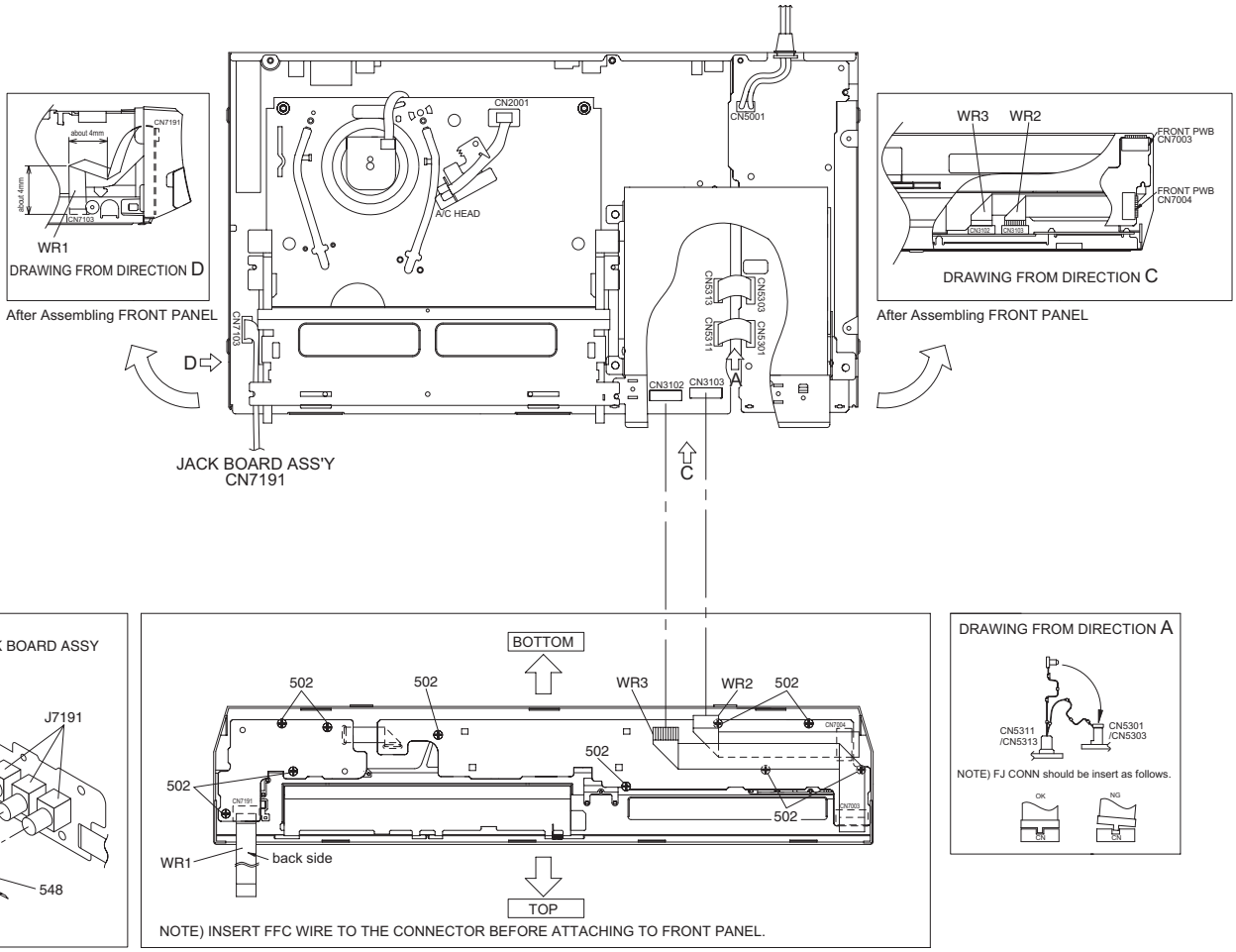
1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.

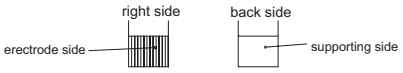


1.2 FINAL ASSEMBLY <M2>



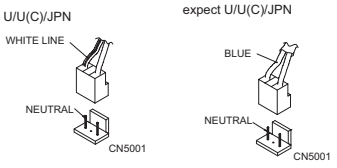


1. Insert direction of FCC WIRE as follows.



2.FFC WIRE and DRUM FPC WIRE should be insert as follows.

3.Insert direction of POWER CORD.



4.Insert the wire to even the root of connector completely at the same time as inserting each wire.

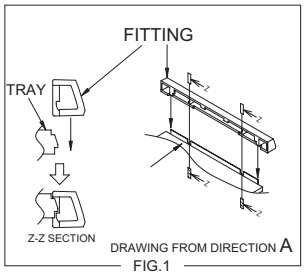


FIG.1

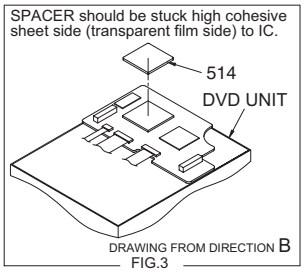


FIG.3

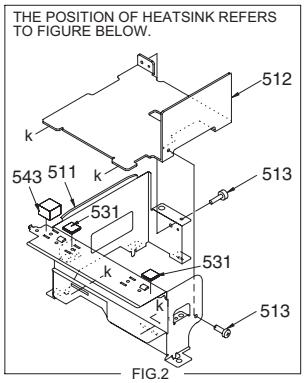


FIG.2

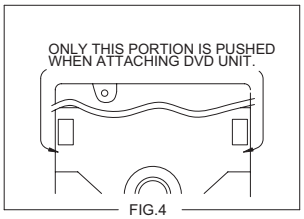
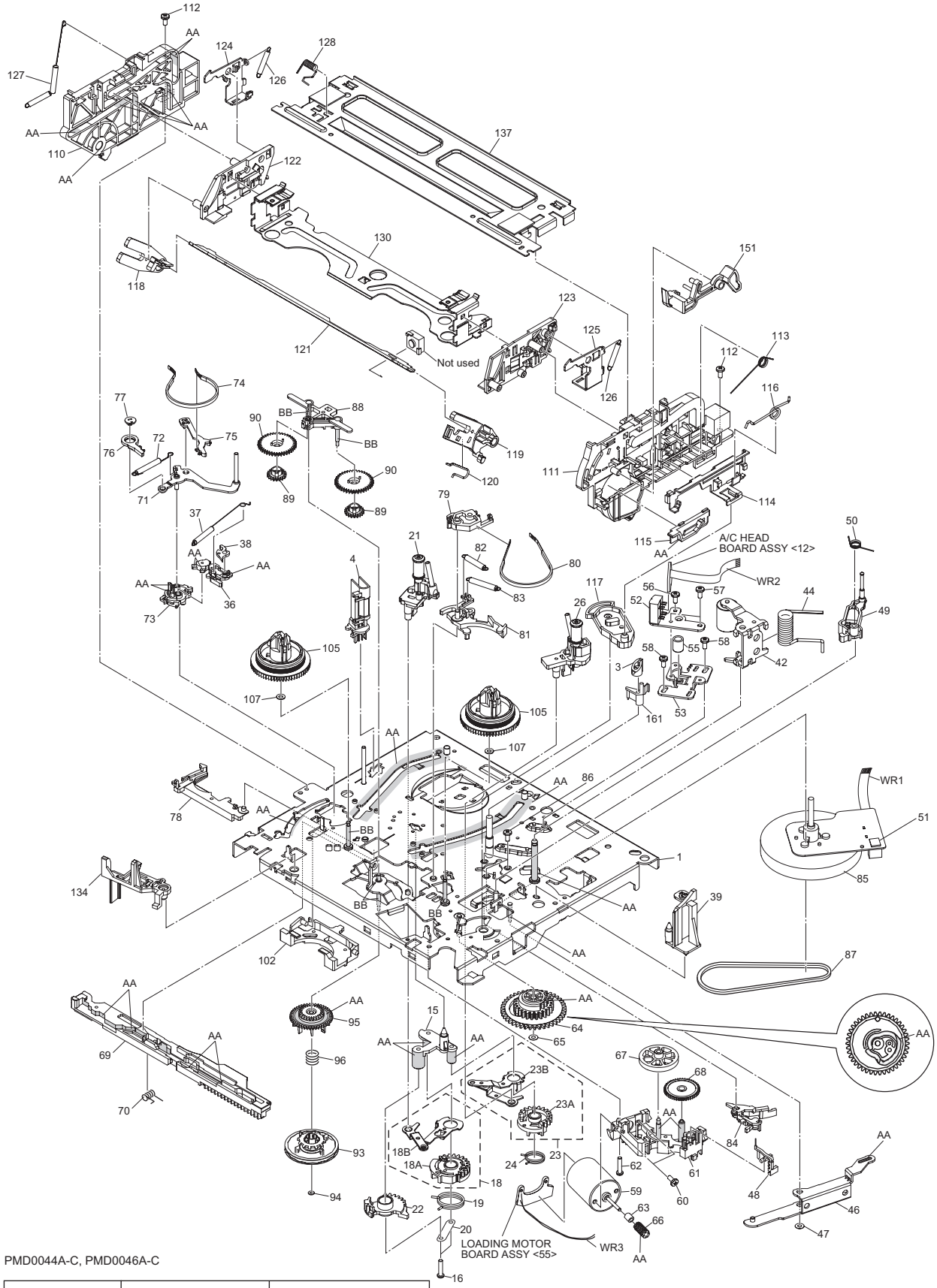


FIG.4

1.3 MECHANISM ASSEMBLY <M4>

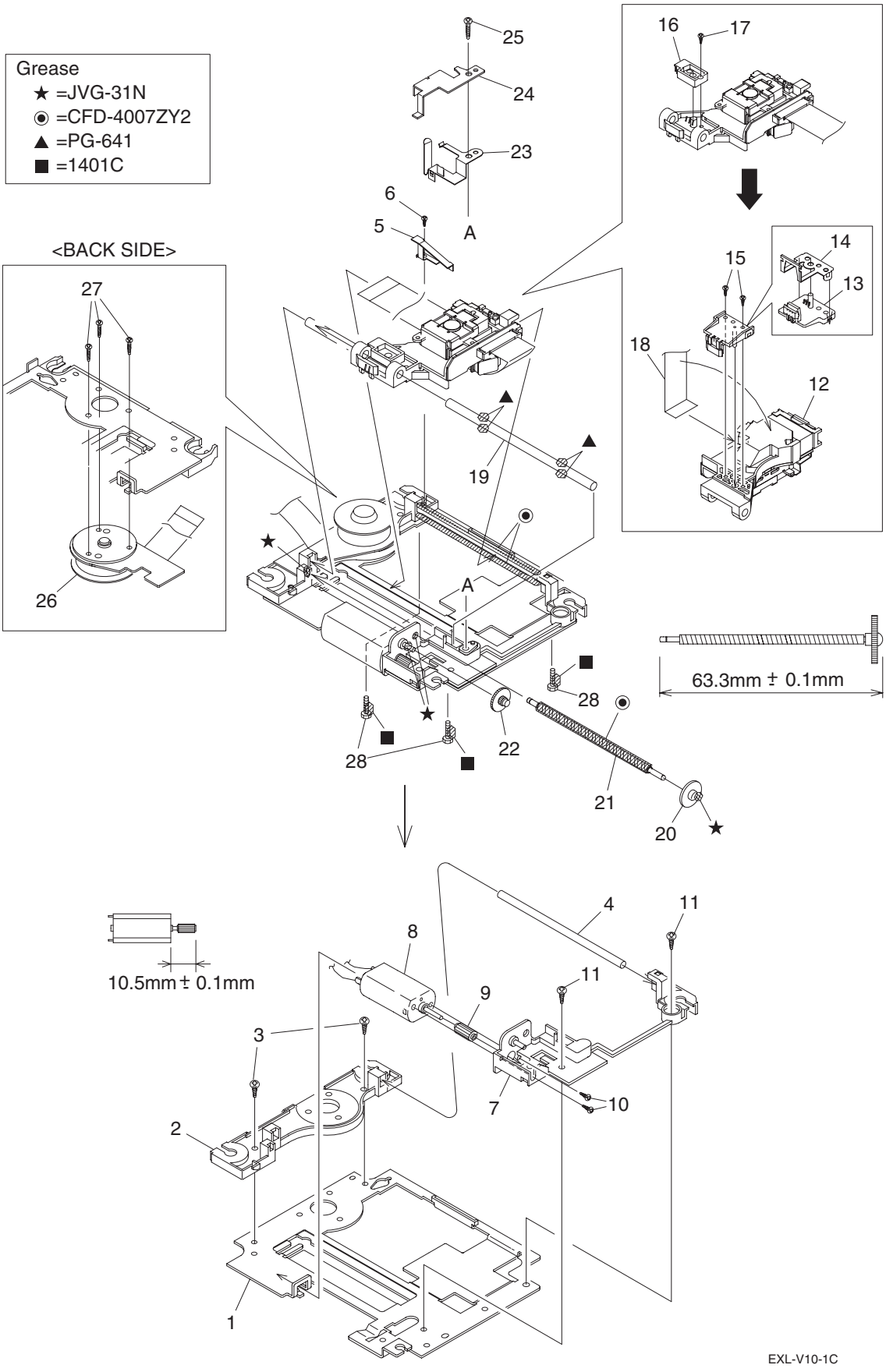


PMD0044A-C, PMD0046A-C

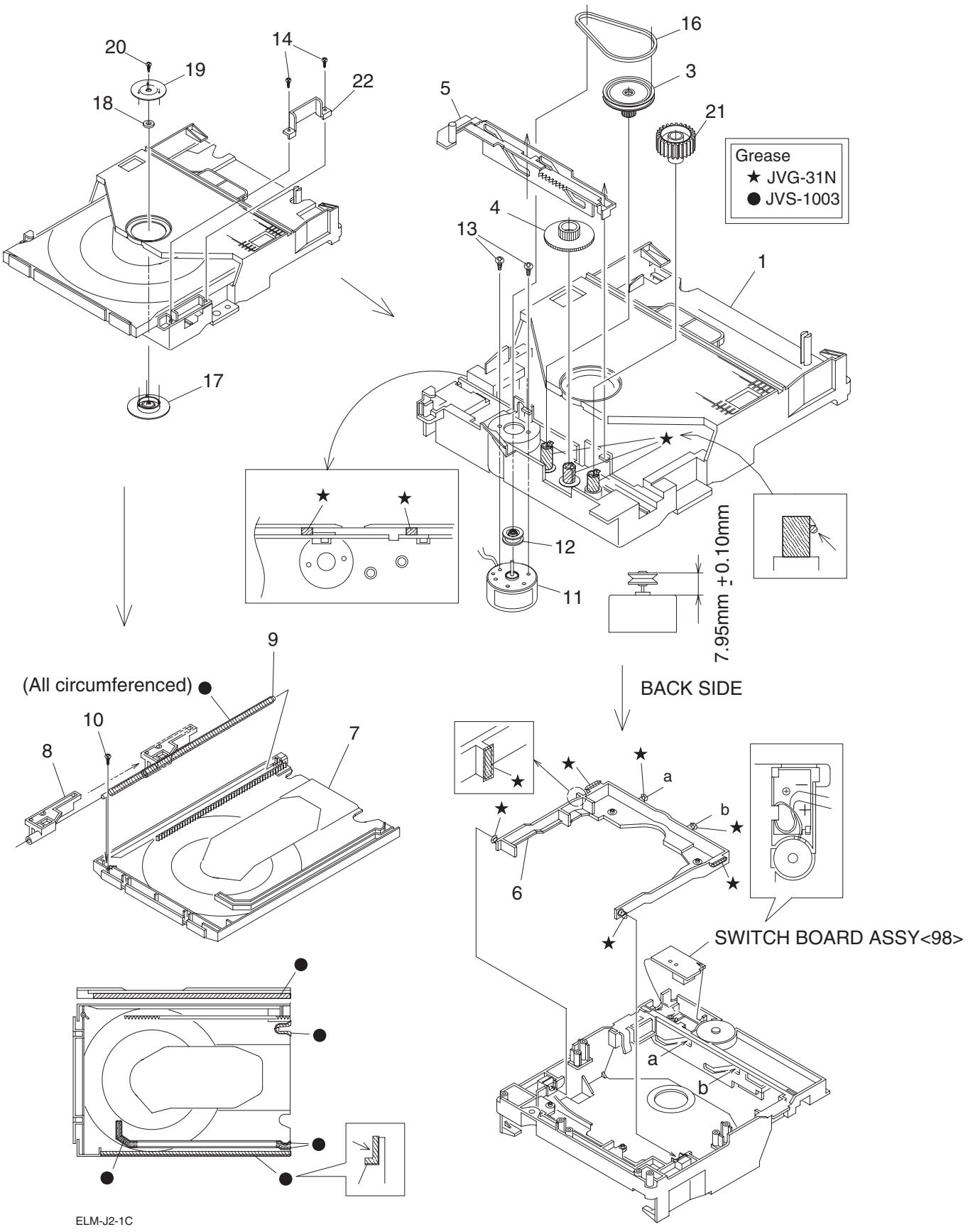
Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

1.4 TRAVERSE MECHANISM ASSEMBLY <M5>



1.5 LOADING MECHANISM ASSEMBLY <M6>



MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

2. PARTS LIST

PACKING AND ACCESSORY ASSEMBLY <M1>

⚠	Symbol No.	Part No.	Part Name	Description	Local
	301	LP31263-004A	PACKING CASE		A
	301	LP31263-009A	PACKING CASE		C
	301	LP31263-008A	PACKING CASE		B,D
	301	LP31263-022A	PACKING CASE		F
	301	LP31263-021A	PACKING CASE		E,G
	302	LP31265-001B	CUSHION ASSY		
	303	PQM30021-95	POLY BAG		
	305	QPC02202230P	POLY BAG	22cm x 22cm	E,F,G
	306	QAM0501-003	RF CABLE		
⚠	307	PEMC1012	CONVERSION PLUG		C,F
	308	----------	BATTERY	(AA TYPE)(x2)	
	309	QPC02202230P	POLY BAG	22cm x 22cm	
⚠	310	LPT0838-001C	INST.BOOK	(ENGLISH)	A
⚠	310	LPT0853-002A	INST.BOOK	(FRENCH)	B
⚠	310	LPT0854-001B	INST.BOOK	(ENGLISH)	C
⚠	310	LPT0854-002B	INST.BOOK	(SPANISH)	C
⚠	310	LPT0853-001C	INST.BOOK	(ENGLISH)	B,D
⚠	310	LPT0856-002B	INST.BOOK	(FRENCH)	E
⚠	310	LPT0857-001B	INST.BOOK	(ENGLISH)	F
⚠	310	LPT0856-001B	INST.BOOK	(ENGLISH)	E,G
	312	QPC02503530P	POLY BAG	25cm x 35cm	
	314	QAM0246-001	S CABLE		E,F,G
	315	BT-52006-2	WARRANTY CARD		B,E
	316	LP21036-034B	REMOCON		A
	316	LP21036-033B	REMOCON		B,C,D,E,F,G
	316A	LP40254-001B	COVER(BATTERY)		A
	316A	LP40254-009A	COVER(BATTERY)		B,C,D,E,F,G
	317	BT-51034-1	REGISTER CARD		A,D,G
	320	QPH02702705	POLY SHEET		A,B,D,E,G

FINAL ASSEMBLY <M2>

⚠	Symbol No.	Part No.	Part Name	Description	Local
⚠	501	LP10492-001C	FRONT PANEL ASSY		A
⚠	501	LP10492-003B	FRONT PANEL ASSY		C
⚠	501	LP10492-002B	FRONT PANEL ASSY		B,D
⚠	501	LP10492-006A	FRONT PANEL ASSY		F
⚠	501	LP10492-005A	FRONT PANEL ASSY		E,G
	501A	LP21188-001A	CASSETTE DOOR		A
	501A	LP21188-002A	CASSETTE DOOR		B,C,D
	501A	LP21188-003A	CASSETTE DOOR		E,F,G
	501B	LP31269-001A	ORNAMENT(C.DR)		A
	501B	LP31269-002A	ORNAMENT(C.DR)		B,C,D,E,F,G
	501C	PQ46448	TORSION SPRING		
	501D	LP31292-001A	MARK(C.DOOR)		E,F,G
	502	QYTDSF2608Z	TAP SCREW	M2.6 x 8mm,DISPLAY,JACK(x9)	F
	502	QYTDSF2608Z	TAP SCREW	M2.6 x 8mm,DISPLAY,JACK(x10)	A,B,C,D,E,G
	503	LP40990-001A	SPECIAL SCREW	FRONT PANEL(x2)	
⚠	504	LP10488-004A	TOP COVER		A
⚠	504	LP10488-002A	TOP COVER		B,C,D,E,F,G
	505	QYSBSG3006M	TAP SCREW	M3 x 6mm,SIDE(x2)	A
	505	QYSBSG3006N	TAP SCREW	3mm x 6mm,SIDE(x2)	B,C,D,E,F,G
	506	QYSBSG3006M	TAP SCREW	M3 x 6mm,REAR(x6)	A
	506	QYSBSG3006N	TAP SCREW	3mm x 6mm,REAR(x6)	B,C,D,E,F,G
	507	LP21190-001A	FITTING		A
	507	LP21190-002A	FITTING		B,C,D
	507	LP21189-001A	FITTING ASSY		E,F,G
⚠	510	LP10489-001B	BOTTOM CHASSIS		F
⚠	510	LP10489-001A	BOTTOM CHASSIS		A,B,C,D,E,G
	511	LP21177-001B	BRACKET(DVD)		
	512	LP21182-001A	HEAT SINK		
	513	QYSDST3006Z	TAP SCREW	3mm x 6mm(x2)	
	514	LP40769-001A	SPACER		
	515	LP40990-001A	SPECIAL SCREW	BRACKET(x3)	
⚠	516	LP21178-004B	REAR COVER		C
⚠	516	LP21178-002C	REAR COVER		A,B,D
⚠	516	LP21178-011A	REAR COVER		F
⚠	516	LP21178-010A	REAR COVER		E,G
	517	QYSBSG3006M	TAP SCREW	M3 x 6mm,REAR COVER	
	518	LP31348-001A	FOOT	(x2)	
	520	QYSBSG3010Z	TAPPING SCREW	3mm x 10mm,DVD UNIT(x3)	
	521	QYSPSPD3008Z	SCREW	3mm x 8mm,DRUM(x3)	
	522	LP40980-001A	SPECIAL SCREW	MECHANISM(x3)	
	523	LP40990-001A	SPECIAL SCREW	HOUSING	
	524	LP40990-001A	SPECIAL SCREW	MAIN(x3)	
	525	LP40990-001A	SPECIAL SCREW	REGULATOR(x3)	
	526	LP40696-008A	HOLDER(PWB)	REGULATOR(x2)	
	527	QYTDSF3008M	TAP SCREW	M3 x 8mm,REAR JACK(x5)	
⚠	529	QMP73J0-170	POWER CORD(US/CA)	1.7m BLACK	C,F
⚠	529	QMPD400-165-JT	POWER CORD(US/CA)	1.65m BLACK	A,B,D,E,G
	530	PDV2531A	DRUM FINAL ASSY		A,B,C,D
	530	PDV2542A	DRUM FINAL ASSY		E,F,G
	531	LP30002-0E5A	SPACER	(x2)	
	540	PQ21623-2-5	EARTH PLATE(RF)		
	541	PQ44695-1-1	EARTH PLATE		
	542	LP40990-001A	SPECIAL SCREW		
	543	LP40983-001A	SHIELD TIGHT		
	544	LP31306-001A	SHEET(SHIELD)		
	545	QQR0491-002	CORE FILTER		
	546	PU43192-4	BINDER		
	548	LP31337-001A	EARTH PLATE		E,F,G
	591	LE40900-003A	INSULATOR	(x4)	
	592	LE40901-001A	SPECIAL SCREW	(x4)	
	594	QYSDSF2608Z	SCREW	2.6mm x 8mm(x4)	
	595	QUQ110-0518BF	FFC WIRE		
	596	LE30001-034A	SPACER		
	597	VYSH101-034	SPACER		
	WR1	QUQ112-0714CG	FFC WIRE	MAIN CN7103-JACK CN7191	A,B,C,D
	WR1	QUQ112-1115CG	FFC WIRE	MAIN CN7103-JACK CN7191	E,F,G
	WR2	QUQ112-1414CG	FFC WIRE	MAIN CN3103-DISPLAY CN7004	
	WR3	QUQ112-1422CG	FFC WIRE	MAIN CN3102-DISPLAY CN7003	

MECHANISM ASSEMBLY <M4>

⚠	Symbol No.	Part No.	Part Name	Description	Local
	1	LP21039-001W	MAIN DECK ASSY		
	3	LP40097-002E	GUIDE POLE CAP		
	4	NAH0004-001	FE HEAD		
	15	LP30958-001B	LOADING GEAR BASE		
	16	QYTPST2620Z	TAP SCREW	2.6mm x 20mm(x2)	
	18	LP40798-001A	LOADING GEAR(SUPPLY) ASSY		
	18A	LP21040-001A	LOADING GEAR(SUPPLY)		
	18B	LP40799-001A	LOADING ARM(SUPPLY) ASSY		
	19	LP40837-001A	TORSION SPRING(SUPPLY)		
	20	LP40903-002B	FIXING PLATE		
	21	LP40806-001D	POLE BASE ASSY(SUPPLY)		
	22	LP30959-001B	LOADING GEAR		
	23	LP40802-001C	LOADING GEAR(TAKE UP) ASSY		
	23A	LP21041-001D	LOADING GEAR(TAKE UP)		
	23B	LP40803-001A	LOADING ARM(TAKE UP) ASSY		
	24	LP40838-001A	TORSION SPRING(TAKE UP)		
	26	LP40808-001E	POLE BASE ASSY(TAKE UP)		
	36	LP21055-001G	TAKE UP LEVER		
	37	LP40943-001A	TENSION SPRING		
	38	LP40859-001D	TAKE UP HEAD		
	39	LP30961-001C	LID GUIDE		
	42	LP40810-001C	PINCH ROLLER ARM ASSY		
	44	LP40840-001D	TORSION SPRING		
	46	LP30963-001C	PRESS LEVER		
	47	PQM30017-24	SLIT WASHER		
	48	LP40930-002F	S-SWITCH		E,F,G
	49	LP40813-001D	GUIDE ARM ASSY		
	50	LP40841-001A	TORSION SPRING		
	51	LP30002-090A	SPACER		A,B,C,D
	52	NAH0003-001	AC HEAD		
	53	LP30965-001A	HEAD BASE		
	55	LP40842-001D	COMP.SPRING		
	56	QYTDST2006M	TAP SCREW	M2 x 6mm	
	57	LP41036-001A	A/C ADJ.SCREW	(x2)	
	58	QYTDST2606Z	TAP SCREW	2.6mm x 6mm(x2)	
	59	QAR0289-001	LOADING MOTOR		
	60	QYTPSP3003Z	SCREW	3mm x 3mm(x2)	
	61	LP21056-002J	MOTOR BRACKET		
	62	QYTPST2620Z	TAP SCREW	2.6mm x 20mm	

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
63	LP40814-001B	WORM BEARING		
64	LP21044-001E	CONTROL CAM		
65	PQM30017-24	SLIT WASHER		
66	LP40815-001A	WORM GEAR		
67	LP40816-001B	HELICAL GEAR		
68	LP40817-001A	CONNECT GEAR		
69	LP10400-001K	CONTROL PLATE		
70	LP40843-001A	TORSION SPRING		
71	LP40818-001B	TENSION ARM ASSY		
72	LP40844-001F	TENSION SPRING		
73	LP21045-001D	TENSION ARM BASE		
74	LP40821-001A	TENSION BAND ASSY		
75	LP30967-001B	BAND HOLDER-1		
76	LP30968-001C	BAND HOLDER-2		
77	LP40822-002B	ADJUST PIN		
78	LP31000-005E	TENSION ARM LEVER		
79	LP21046-001C	MAIN BRAKE(TAKE UP)		
80	LP40824-001A	BAND BRAKE ASSY		
81	LP30969-002B	BRAKE LEVER		
82	LP30003-033B	TENSION SPRING		
83	LP30003-035B	TENSION SPRING		
84	LP40825-001B	CAPSTAN BRAKE ASSY		
⚠ 85	QAR0267-002	CAPSTAN MOTOR		
86	QYTPSG2606Z	TAP SCREW	2.6mm x 6mm(x3)	
87	LP30005-010A	BELT		
88	LP30970-001A	IDLER ARM		
89	LP40828-004A	IDLER GEAR 1	(x2)	
90	LP40829-002A	IDLER GEAR 2	(x2)	
93	LP40934-001B	CLUTCH UNIT		
94	PQM30017-47	SLIT WASHER		
95	LP30973-001A	DIRECT GEAR		
96	LP40939-001A	COMP.SPRING		
102	LP30974-001C	CHANGE LEVER		
105	LP21049-001A	REEL DISK	(x2)	
107	LP30017-004A	SPACER	(x2)	
110	LP10401-001J	SIDE FRAME(L)		
111	LP10402-001L	SIDE FRAME(R)		
112	QYTDST2606Z	TAP SCREW	2.6mm x 6mm(x2)	
113	LP40917-001D	TORSION SPRING		
114	LP30976-001E	SIDE PLATE		
115	LP30977-002D	LIMIT PLATE		
116	LP40846-001C	LIMIT SPRING		
117	LP31100-002A	DRIVE LEVER		
118	LP30978-001B	DRIVE ARM(L)		
119	LP30979-001N	DRIVE ARM(R)		
120	LP40847-001B	TORSION SPRING		
121	LP30980-001E	CONNECT PLATE		
122	LP10403-001C	SIDE HOLDER(L)		
123	LP10404-001E	SIDE HOLDER(R)		
124	LP30983-001B	LOCK LEVER(L)		
125	LP30984-001B	LOCK LEVER(R)		
126	LP40924-001D	TENSION SPRING	(x2)	
127	LP40972-001A	EARTH SPRING(1)		
128	LP40857-001B	EARTH SPRING(2)		
130	LP30981-001G	C.HOLDER ASSY		
134	LP21051-002C	REC SAFETY LEVER		
137	LP21052-001K	TOP FRAME		
151	LP30985-002K	DOOR OPENER		
161	LP40993-001A	TAPE GUIDE		
WR1	WJT0117-001A	E-CARD WIRE	DRUM	
WR2	WJT0067-001B	E-CARD WIRE	A/C HEAD CN2001	
WR3	WJS0022-001A	E-FL/RB WIRE	LOADING MOTOR	

TRAVERSE MECHANISM ASSEMBLY <M5>

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LE20697-002A	MECHA BASE		
2	LE20699-001A	SPINDLE BASE		
3	QYSDST2604M	TAPPING SCREW	2.6mm x 4mm(x2)	
4	LE40931-001A	SHAFT		
5	LV33991-001A	ADJUST SPRING		
6	QYSPSFU2040M	TAPPING SCREW	M2 x 4mm	
7	LE20698-001A	FEED HOLDER		
8	QAR0215-001	FEED MOTOR		
9	LV41510-001A	FEED GEAR T		
10	QYSPSPU2040M	TAPPING SCREW	M2 x 4mm(x2)	
11	QYSDST2604M	TAPPING SCREW	2.6mm x 4mm(x2)	
12	QAL0507-001	PICK UP		
13	LE20700-001A	SW ACTUATOR		
14	LE31067-002A	LEAD SPRING		
15	QYSPSFU1740Z	TAPPING SCREW	M1.7 x 4mm(x2)	
16	LE40929-001A	SW.LEVER		
17	QYSPSFU1740Z	TAPPING SCREW	M1.7 x 4mm	
18	QUQ105-24X8AC	FFC		
19	LE40931-001A	SHAFT		
20	LE40855-001A	FEED GEAR E		
21	LE40918-001A	LEAD SCREW		
22	LE40930-001A	FEED GEAR M		
23	LE40928-001A	THURUST SPRING		
24	LE40927-001A	PLATE		
25	QYSDST2614Z	TAPPING SCREW	M2.6 x 14mm	
26	QAR0284-001	SPINDLE MOTOR		
27	QYSPSPU1740Z	TAPPING SCREW	M1.7 x 4mm(x3)	
28	LE40858-002A	SPECIAL SCREW	(x3)	

LOADING MECHANISM ASSEMBLY <M6>

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LE10275-004A	LOADING BASE		
3	LE31043-001A	PULLEY GEAR		
4	LE31042-001A	MIDDLE GEAR		
5	LE20665-002A	SLIDE CAM		
6	LE20666-002A	ELEVATOR		
7	LE10276-002A	TRAY		
8	LE31045-001A	BUSHING		
9	LE40898-001A	SHAFT		
10	QYSSSF2008Z	TAP SCREW	M2 x 8mm	
11	QAR0197-001	MOTOR		
12	LV42087-002A	MOTOR PULLEY		
13	QYSPSPU1730Z	SCREW	FOR MOTOR(x2)	
14	QYSDSF2008Z	TAP SCREW	M2 x 8mm(x2)	
16	LE40897-001A	BELT		
17	LE31046-003A	CLAMPER		
18	LV42930-003A	MAGNET		
19	LE40899-001A	YOKE		
20	LE40906-001A	SPECIAL SCREW		
21	LE31044-001A	IDLE GEAR		
22	LE40937-001A	LEAF SPRING		

REGULATOR BOARD ASSEMBLY <01>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10206-07B1	REGULATOR BOARD ASSY		C
PW1	LPA10206-04B1	REGULATOR BOARD ASSY		A,D
PW1	LPA10206-13A1	REGULATOR BOARD ASSY		F
PW1	LPA10206-12B1	REGULATOR BOARD ASSY		E,G
PW1	LPA10206-04B1	REGULATOR BOARD ASSY		B
IC5201	UTCTL431-T	IC		
IC5201 or	MM1431AT-T	IC		
IC5201 or	L5431-T	IC		
IC5201 or	TL431/A/-T	IC		
IC5301	UTCTL431-T	IC		
IC5301 or	MM1431AT-T	IC		
IC5301 or	L5431-T	IC		
IC5301 or	TL431/A/-T	IC		
IC5302	MM1565AF-X	IC		
Q5101	2SK2632-CB14	POWER MOS FET		C,F
Q5101	2SK2043-CB14	FET		A,B,D,E,G
Q5102	2SD2144S/UV/-T	TRANSISTOR		
Q5103	2SB709A/QR/-X	TRANSISTOR		
Q5103 or	2SA1037AK/QR/-X	TRANSISTOR		
Q5311	2SC5739/QP/	TRANSISTOR		

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
Q5315	2SC5739/QP/	TRANSISTOR		
Q5315 or	2SD2394/EF/	TRANSISTOR		
D5001	D3SBA60	DIODE		
D5001 or	GBJ4J	BRIDGE DIODE		
D5101	10ERB40-T2	FR DIODE		
D5101 or	AU01-T2	SI DIODE		
D5102	10ERB40-T2	FR DIODE		
D5102 or	AU01-T2	SI DIODE		
D5103	1SS133-T2	DIODE		
D5103 or	1SS270A-T2	SI DIODE		
D5105	1SS133-T2	DIODE		C,F
D5105 or	1SS270A-T2	SI DIODE		C,F
D5106	MTZJ33D-T2	Z DIODE		
D5106 or	RD33ES/B4/-T2	Z DIODE		
D5201	10ERB20-T2	FR DIODE		
D5201 or	AU01Z-T2	FR DIODE		
D5201 or	1F4G-T2	FR DIODE		
D5202	SB240-F26	SB DIODE		
D5202 or	RK14LF-B2	SBD		
D5202 or	21DQ04-F	SBD		
D5205	AU01Z-T2	FR DIODE		
D5205 or	10ERB20-T2	FR DIODE		
D5205 or	1F4G-T2	FR DIODE		
D5206	AU01Z-T2	FR DIODE		
D5206 or	10ERB20-T2	FR DIODE		
D5206 or	1F4G-T2	FR DIODE		
D5207	SB240-F26	SB DIODE		
D5207 or	RK14LF-B2	SBD		
D5207 or	21DQ04-F	SBD		
D5208	SB240-F26	SB DIODE		
D5208 or	RK14LF-B2	SBD		
D5208 or	21DQ04-F	SBD		
D5209	PG104RS-T2	FR DIODE		
D5209 or	10ERB20-T2	FR DIODE		
D5209 or	1F4G-T2	FR DIODE		
D5209 or	AU01Z-T2	FR DIODE		
D5209 or	1SR153-400-T2	FR DIODE		
D5210	PG104RS-T2	FR DIODE		
D5210 or	10ERB20-T2	FR DIODE		
D5210 or	1F4G-T2	FR DIODE		
D5210 or	AU01Z-T2	FR DIODE		
D5210 or	1SR153-400-T2	FR DIODE		
D5212	SB240-F26	SB DIODE		
D5212 or	RK14LF-B2	SBD		
D5212 or	21DQ04-F	SBD		
D5301	MTZJ15C-T2	Z DIODE		
D5301 or	RD15ES/B3/-T2	Z DIODE		
D5302	1SS133-T2	DIODE		
D5302 or	1SS270A-T2	SI DIODE		
D5303	MTZJ27C-T2	Z DIODE		
D5303 or	RD27ES/B3/-T2	Z DIODE		
D5310	MTZJ10B-T2	Z DIODE		
D5310 or	RD10ES/B2/-T2	Z DIODE		
⚠ PC5101	PC123Y22	PHOTO COUPLER		
⚠ C5001	QFZ9077-473	MPP CAPACITOR	0.047uF 275V M	
⚠ C5002	QFZ9051-223	MM CAPACITOR	0.022uF 250V M	
⚠ C5003	QCZ9079-101	C CAPACITOR	100pF AC250V K	A,B,D,E,G
⚠ C5004	QCZ9079-222	C CAPACITOR	2200pF AC250V M	C,F
⚠ C5004	QCZ9079-472	C CAPACITOR	4700pF AC250V M	A,B,D,E,G
C5006	QEZ0374-107	E CAPACITOR	100uF 400V M	C,F
C5006	QETM2DM-157	E CAPACITOR	150uF 200V M	A,B,D,E,G
C5101	QCZ0336-330Z	C CAPACITOR	33pF 1kV J	
C5102	QCZ0333-472	C CAPACITOR	4700pF 1kV K	
C5104	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C5105	QFLC1HJ-183Z	M CAPACITOR	0.018uF 50V J	
C5106	NCB31HK-271X	C CAPACITOR	270pF 50V K	
C5107	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C5201	QFVF1HJ-154Z	MF CAPACITOR	0.15uF 50V J	
C5202	QEMU1AM-567Z	E CAPACITOR	560uF 10V M	
C5203	QEMX0JM-227Z	E CAPACITOR	220uF 6.3V M	
C5204	QEMU1AM-567Z	E CAPACITOR	560uF 10V M	
C5205	QEMU1CM-397Z	E CAPACITOR	390uF 16V M	
C5206	QEMU1AM-567Z	E CAPACITOR	560uF 10V M	
C5207	QETN2AM-475Z	E CAPACITOR	4.7uF 100V M	
C5208	QEMU1HM-186Z	E CAPACITOR	18uF 50V M	
C5209	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5210	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5211	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5301	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C5306	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C5307	NDC31HJ-471X	C CAPACITOR	470pF 50V J	
C5309	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5310	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5311	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5312	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5313	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C5314	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
⚠ R5001	QRZ9046-475Z	C RESISTOR	4.7MΩ 1/2W K	A,B,D,E,G
R5101	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R5102	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R5103	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J	
R5104	QRG02GJ-683	OMF RESISTOR	68kΩ 2W J	
R5106	QRT01DJ-R27X	MF RESISTOR	0.27Ω 1W J	
R5107	QRE121J-331Y	C RESISTOR	330Ω 1/2W J	
R5108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	C,F
R5108	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	A,B,D,E,G
R5109	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R5110	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R5111	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R5112	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	C,F
R5113	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R5201	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R5202	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5203	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5204	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	
R5205	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	
R5206	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	
R5302	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5305	NRSA63J-3R3X	MG RESISTOR	3.3Ω 1/16W J	
R5306	NRSA63J-3R3X	MG RESISTOR	3.3Ω 1/16W J	
R5307	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5317	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
⚠ R5318	QRZ9005-470X	FUSI RESISTOR	47Ω	
R5319	NRSA63J-560X	MG RESISTOR	56Ω 1/16W J	
R5320	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D	
R5321	NRSA63D-473X	MG RESISTOR	47kΩ 1/16W D	
R5325	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
L5201	PELN1184	CHOKE COIL		
L5202	PELN1184	CHOKE COIL		
L5203	PELN1184	CHOKE COIL		
L5301	QQL29BJ-220Z	P COIL	22uH J	
L5302	QQL231J-220Y	COIL	22uH J	
L5303	QQL231J-220Y	COIL	22uH J	
⚠ T5001	QQS0219-001	SW TRANSF		
⚠ CN5001	QGA7901C3-02	CONNECTOR	W-B (1-2)	C,F
CN5301	QGB1231L1-11	CONNECTOR	B-B (1-11)	
CN5302	QGB2027MA-22	CONNECTOR	B-B (1-22)	
CN5303	QGB1231L1-11	CONNECTOR	B-B (1-11)	
⚠ CP5301	QMFZ050-1R5X-E	FUSE	1.5A 125V	
⚠ CP5302	QMFZ050-1R5X-E	FUSE	1.5A 125V	
⚠ F5001	QMF51W2-2R0-J8	FUSE	2A AC250V	C,F
⚠ F5001	QMF51N2-1R25-J1	FUSE	1.25A AC250V	A,B,D,E,G
FC5001	QNG0020-001Z	FUSE CLIP		
FC5002	QNG0020-001Z	FUSE CLIP		
HS1	LP40621-001A	HEAT SINK	Q5101	
K5101	QQR0678-001Z	FERRITE BEADS		
⚠ LF5002	QQR0532-001	LINE FILTER		
OT1	QYTDST3008Z	TAP SCREW	M3 x 8mm,Q5101	
⚠ VA5001	QAF0039-431Z	VARISTOR	430V	A,B,D,E,G

MAIN BOARD ASSEMBLY <03> (LPB10207 TYPE)

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10207-07B	MAIN BOARD ASSY		C
PW1	LPA10207-04B	MAIN BOARD ASSY		A,B,D
PW1	LPA10207-12A	MAIN BOARD ASSY		F

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠	Symbol No.		Part No.	Part Name	Description	Local
	PW1		LPA10207-11B	MAIN BOARD ASSY		E,G
	IC1		JCP8060-NVA	IC		A,B,C,D
	IC1		JCP8060-NSA	IC		E,F,G
	IC1	or	JCP8060-MSA	IC		
	IC2		MM1504XN-X	IC		E,F,G
	IC501		JCP8058-2	IC		E,F,G
⚠	IC2201		AN3663FBP	IC		
	IC3001		HD6432199RB02F	IC(MCU)		
	IC3001	or	HD64F2199RFB02	IC(MCU)		
	IC3002		IC-PST3427U-X	IC		
	IC3003		LPN0825-002C-02	IC(EEPROM)	*(REFER TO BELOW)	C
	IC3003		LPN0825-001C-01	IC(EEPROM)	*(REFER TO BELOW)	A,B,D
	IC3003		LPN0840-002B-04	IC(EEPROM)	*(REFER TO BELOW)	F
	IC3003		LPN0840-001B-03	IC(EEPROM)	*(REFER TO BELOW)	E,G
	IC7101		74HC4052D-X	IC		E,F,G
	IC7101	or	TC74HC4052AF-XE	IC(DIGITAL)		E,F,G
	IC7102		MM1507XN-X	IC		
	IC7104		MM1623XF-X	IC		
	IC7501		74VHCT08ASJ-X	IC		
	IC8001		HA17558AF-X	IC		
	IC8001	or	RC4558D-X	IC		
	Q1		DTC144WUA-X	DIGI TRANSISTOR		E,F,G
	Q1	or	PDTC144WU-X	DIGI TRANSISTOR		E,F,G
	Q1	or	UN521E-X	DIGI TRANSISTOR		E,F,G
	Q1	or	RN1309-X	DIGI TRANSISTOR		E,F,G
	Q2		2SD601A/QRS/-X	TRANSISTOR		E,F,G
	Q2	or	2SC2412K/QRS/-X	TRANSISTOR		E,F,G
	Q202		2SC4081/QRS/-X	TRANSISTOR		
	Q202	or	2PC4081/R/-X	TRANSISTOR		
	Q501		2SA1576A/QR/-X	TRANSISTOR		E,F,G
	Q501	or	2PA1576/R/-X	TRANSISTOR		E,F,G
	Q2001		2SC4081/QRS/-X	TRANSISTOR		
	Q2001	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q2001	or	2PC4081/R/-X	TRANSISTOR		
	Q2002		2SC4081/QRS/-X	TRANSISTOR		
	Q2002	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q2002	or	2PC4081/R/-X	TRANSISTOR		
	Q2003		UN211E-X	DIGI TRANSISTOR		
	Q2003	or	DTA144WKA-X	TRANSISTOR		
	Q2051		2SD601A/QRS/-X	TRANSISTOR		
	Q2051	or	2SC2412K/QRS/-X	TRANSISTOR		
	Q2052		2SA1576A/QR/-X	TRANSISTOR		
	Q2052	or	2SB1218A/QR/-X	TRANSISTOR		
	Q2052	or	2PA1576/R/-X	TRANSISTOR		
	Q2053		DTC144WUA-X	DIGI TRANSISTOR		
	Q2053	or	PDTC144WU-X	DIGI TRANSISTOR		
	Q2053	or	UN521E-X	DIGI TRANSISTOR		
	Q2053	or	RN1309-X	DIGI TRANSISTOR		
	Q2054		2SA1576A/QR/-X	TRANSISTOR		
	Q2054	or	2SB1218A/QR/-X	TRANSISTOR		
	Q2054	or	2PA1576/R/-X	TRANSISTOR		
	Q2055		DTC144WUA-X	DIGI TRANSISTOR		
	Q2055	or	PDTC144WU-X	DIGI TRANSISTOR		
	Q2055	or	UN521E-X	DIGI TRANSISTOR		
	Q2055	or	RN1309-X	DIGI TRANSISTOR		
	Q2201		DTA144WUA-X	DIGI TRANSISTOR		
	Q2201	or	PDTA144WU-X	DIGI TRANSISTOR		
	Q2201	or	UN511E-X	DIGI TRANSISTOR		
	Q2201	or	RN2309-X	DIGI TRANSISTOR		
	Q2202		DTC144WUA-X	DIGI TRANSISTOR		
	Q2202	or	PDTC144WU-X	DIGI TRANSISTOR		
	Q2202	or	UN521E-X	DIGI TRANSISTOR		
	Q2202	or	RN1309-X	DIGI TRANSISTOR		
	Q2203		2SC4081/QRS/-X	TRANSISTOR		
	Q2203	or	2PC4081/R/-X	TRANSISTOR		
	Q2203	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q2204		2SC4081/QRS/-X	TRANSISTOR		
	Q2204	or	2PC4081/R/-X	TRANSISTOR		
	Q2204	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q2251		DTC144WUA-X	DIGI TRANSISTOR		E,F,G
	Q2251	or	PDTC144WU-X	DIGI TRANSISTOR		E,F,G
	Q2251	or	UN521E-X	DIGI TRANSISTOR		E,F,G
	Q2251	or	RN1309-X	DIGI TRANSISTOR		E,F,G
	Q2252		DTC144WUA-X	DIGI TRANSISTOR		E,F,G
	Q2252	or	PDTC144WU-X	DIGI TRANSISTOR		E,F,G
	Q2252	or	UN521E-X	DIGI TRANSISTOR		E,F,G
	Q2252	or	RN1309-X	DIGI TRANSISTOR		E,F,G
	Q2253		DTC144WUA-X	DIGI TRANSISTOR		E,F,G
	Q2253	or	PDTC144WU-X	DIGI TRANSISTOR		E,F,G
	Q2253	or	UN521E-X	DIGI TRANSISTOR		E,F,G
	Q2253	or	RN1309-X	DIGI TRANSISTOR		E,F,G
	Q2254		DTC114EUA-X	DIGI TRANSISTOR		E,F,G
	Q2254	or	PDTC114EU-X	DIGI TRANSISTOR		E,F,G
	Q2254	or	UN5211-X	DIGI TRANSISTOR		E,F,G
	Q2254	or	RN1302-X	DIGI TRANSISTOR		E,F,G
	Q3002		PTZ-NV16A	IC(PHOTO SENSOR		
	Q3004		2SD1819A/QRS/-X	TRANSISTOR		
	Q3004	or	2SC4081/QRS/-X	TRANSISTOR		
	Q3004	or	2PC4081/R/-X	TRANSISTOR		
	Q3005		2SD1819A/QRS/-X	TRANSISTOR		
	Q3005	or	2SC4081/QRS/-X	TRANSISTOR		
	Q3005	or	2PC4081/R/-X	TRANSISTOR		
	Q3007		UN521E-X	DIGI TRANSISTOR		C,F
	Q3007	or	DTC144WUA-X	DIGI TRANSISTOR		C,F
	Q3007	or	PDTC144WU-X	DIGI TRANSISTOR		C,F
	Q3007	or	RN1309-X	DIGI TRANSISTOR		C,F
	Q3401		2SD1858/QR/-T	TRANSISTOR		
	Q4001		UN5211-X	DIGI TRANSISTOR		
	Q4001	or	DTC114EUA-X	DIGI TRANSISTOR		
	Q4001	or	PDTC114EU-X	DIGI TRANSISTOR		
	Q4001	or	RN1302-X	DIGI TRANSISTOR		
	Q5306		2SD2144S/UV/-T	TRANSISTOR		A,B,C,D
	Q5306	or	2SC3576-JVC-T	TRANSISTOR		A,B,C,D
	Q5306		2SD1302/ST/-T	TRANSISTOR		E,F,G
	Q5307		PDTA144WU-X	DIGI TRANSISTOR		
	Q5307	or	DTA144WUA-X	DIGI TRANSISTOR		
	Q5307	or	UN511E-X	DIGI TRANSISTOR		
	Q5307	or	RN2309-X	DIGI TRANSISTOR		
	Q5309		PDTC114EU-X	DIGI TRANSISTOR		
	Q5309	or	DTC114EUA-X	DIGI TRANSISTOR		
	Q5309	or	UN5211-X	DIGI TRANSISTOR		
	Q5309	or	RN1302-X	DIGI TRANSISTOR		
	Q5310		2SD1858/QR/-T	TRANSISTOR		A,B,C,D
	Q5312		PDTA114EU-X	DIGI TRANSISTOR		
	Q5312	or	DTA114EUA-X	DIGI TRANSISTOR		
	Q5312	or	UN5111-X	DIGI TRANSISTOR		
	Q5312	or	RN2302-X	DIGI TRANSISTOR		
	Q5313		2SD1819A/QRS/-X	TRANSISTOR		A,B,C,D
	Q5313	or	2SC4081/QRS/-X	TRANSISTOR		A,B,C,D
	Q5313		2SD1819A/RS/-X	TRANSISTOR		E,F,G
	Q5313	or	2SC4081/RS/-X	TRANSISTOR		E,F,G
	Q5313	or	2PC4081/R/-X	TRANSISTOR		
	Q5314		2SC5739/QP/	TRANSISTOR		E,F,G
	Q5314	or	2SD2394/EF/	TRANSISTOR		E,F,G
	Q6030		2SB1218A/QR/-X	TRANSISTOR		
	Q6030	or	2SA1576A/QR/-X	TRANSISTOR		
	Q6030	or	2PA1576/R/-X	TRANSISTOR		
	Q6031		DTC143TUA-X	DIGI TRANSISTOR		E,F,G
	Q6031	or	UN5216-X	DIGI TRANSISTOR		E,F,G
	Q6031	or	RN1310-X	DIGI TRANSISTOR		E,F,G
	Q7105		2SA1576A/QR/-X	TRANSISTOR		E,F,G
	Q7105	or	2PA1576/R/-X	TRANSISTOR		E,F,G
	Q7106		2SA1576A/QR/-X	TRANSISTOR		E,F,G
	Q7106	or	2PA1576/R/-X	TRANSISTOR		E,F,G
	Q7113		2SA1576A/QR/-X	TRANSISTOR		A,B,C,D
	Q7114		2SA1576A/QR/-X	TRANSISTOR		E,F,G
	Q7114	or	2PA1576/R/-X	TRANSISTOR		E,F,G
	Q7115		2SA1576A/QR/-X	TRANSISTOR		E,F,G
	Q7115	or	2PA1576/R/-X	TRANSISTOR		E,F,G
	Q7116		DTC144WUA-X	DIGI TRANSISTOR		
	Q7116	or	PDTC144WU-X	DIGI TRANSISTOR		E,F,G
	Q7116	or	UN521E-X	DIGI TRANSISTOR		E,F,G
	Q7116	or	RN1309-X	DIGI TRANSISTOR		E,F,G
	Q8001		2SC4081/QRS/-X	TRANSISTOR		
	Q8001	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q8001	or	2PC4081/R/-X	TRANSISTOR		
	Q8002		2SC4081/QRS/-X	TRANSISTOR		
	Q8002	or	2SD1819A/QRS/-X	TRANSISTOR		
	Q8002	or	2PC4081/R/-X	TRANSISTOR		
	Q8051		DTC114EUA-X	DIGI TRANSISTOR		
	Q8051	or	PDTC114EU-X	DIGI TRANSISTOR		
	Q8051	or	UN5211-X	DIGI TRANSISTOR		
	Q8051	or	RN1302-X	DIGI TRANSISTOR		
	Q8052		2SC4081/QRS/-X	TRANSISTOR		

*The VCR goes to jig RCU mode after replacing the EEPROM and the VCR does not accept some RCU command.
Therefore please set the VCR to the user RCU mode after replacing the EEPROM.
The method of setting the VCR to the user RCU mode is written on the service manual.

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
Q8052	or 2SD1819A/QRS/-X	TRANSISTOR		
Q8052	or 2PC4081/R/-X	TRANSISTOR		
Q8053	DTA114EUA-X	DIGI TRANSISTOR		
Q8053	or PDTA114EU-X	DIGI TRANSISTOR		
Q8053	or UN5111-X	DIGI TRANSISTOR		
Q8053	or RN2302-X	DIGI TRANSISTOR		
D201	1SS133-T2	DIODE		
D2001	1SS133-T2	DIODE		
D2001	or 1SS270A-T2	SI DIODE		
D2251	1SS133-T2	DIODE		
D2251	or 1SS270A-T2	SI DIODE		
D3001	LNB2301L01VI	LED		
D3002	1SS133-T2	DIODE		
D3002	or 1SS270A-T2	SI DIODE		
D3003	RD33ES/B3/-T2	Z DIODE		
D3003	or MTZJ33C-T2	Z DIODE		
D3004	10EDB20-T2	SI DIODE		
D3004	or 1A3G-T2	SI DIODE		
⚠ D3005	10EDB20-T2	SI DIODE		
⚠ D3005	or 1A3G-T2	SI DIODE		
D3008	1SS133-T2	DIODE		C,F
D3008	or 1SS270A-T2	SI DIODE		C,F
D3401	RD3.6ES/B2/-T2	Z DIODE		
D3401	or MTZJ3.6B-T2	Z DIODE		
D5305	MTZJ11C-T2	Z DIODE		
D5305	or RD11ES/B3/-T2	Z DIODE		
D5306	MTZJ5.6C-T2	Z DIODE		
D5306	or RD5.6ES/B3/-T2	Z DIODE		
D5307	1SS133-T2	DIODE		
D5307	or 1SS270A-T2	SI DIODE		
D6002	HZ30-2L-T2	Z DIODE		
D6002	or HZ30-2LTD	Z DIODE		
D8001	1SS133-T2	DIODE		
D8001	or 1SS270A-T2	SI DIODE		
PC3001	RPI-304J	IC(PHOTO SENSOR)		
PC3002	RPI-304J	IC(PHOTO SENSOR)		
C1	NDC21HJ-151X	C CAPACITOR	150pF 50V J	
C2	NDC21HJ-330X	C CAPACITOR	33pF 50V J	A,B,C,D
C2	NDC21HJ-4R0X	C CAPACITOR	4pF 50V J	E,F,G
C3	NDC21HJ-470X	C CAPACITOR	47pF 50V J	E,F,G
C4	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C5	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C6	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C7	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C8	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C9	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	
C10	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C11	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C12	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C13	QEPF1HM-105Z	E CAPACITOR	1uF 50V M	F
C13	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	C,E,G
C14	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C15	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C16	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C17	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C18	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	E,F,G
C19	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C20	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C21	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C22	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C23	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	E,F,G
C24	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C25	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	
C26	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C27	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C30	NCB21HK-331X	C CAPACITOR	330pF 50V K	
C31	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C32	QCBB1HK-104Y	C CAPACITOR	0.1uF 50V K	
C33	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C34	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C35	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C36	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C37	NDC21HJ-4R0X	C CAPACITOR	4pF 50V J	
C38	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C39	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C40	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C41	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C43	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	
C44	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	
C45	NCB21HK-472X	C CAPACITOR	4700pF 50V K	
C46	NCB21EK-333X	C CAPACITOR	0.033uF 25V K	A,B,C,D
C46	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	E,F,G
C47	QEKJ1HM-474Z	E CAPACITOR	0.47uF 50V M	
C48	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C49	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C50	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C52	NDC21HJ-120X	C CAPACITOR	12pF 50V J	E,F,G
C56	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C57	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C58	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C59	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C60	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C61	QEKC0JM-476Z	E CAPACITOR	47uF 6.3V M	
C62	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	
C64	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
C66	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	E,F,G
C67	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C201	NDC21HJ-220X	C CAPACITOR	22pF 50V J	
C202	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C203	NCB21HK-102X	C CAPACITOR	1000pF 50V K	
C204	NCB21HK-681X	C CAPACITOR	680pF 50V K	
C205	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C206	NCB21HK-681X	C CAPACITOR	680pF 50V K	
C207	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C209	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C209	QEKJ0JM-107Z	E CAPACITOR	100uF 6.3V M	E,F,G
C210	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C212	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C213	NDC21HJ-100X	C CAPACITOR	10pF 50V J	
C501	QEKJ0JM-107Z	E CAPACITOR	100uF 6.3V M	E,F,G
C502	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C503	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	E,F,G
C504	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	E,F,G
C507	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	E,F,G
C508	NCB21HK-104X	C CAPACITOR	0.1uF 50V K	E,F,G
C509	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C510	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	E,F,G
C511	QEKJ0JM-337Z	E CAPACITOR	330uF 6.3V M	E,F,G
C513	NDC21HJ-221X	C CAPACITOR	220pF 50V J	E,F,G
C514	NDC21HJ-271X	C CAPACITOR	270pF 50V J	E,F,G
C515	NDC21HJ-121X	C CAPACITOR	120pF 50V J	E,F,G
C516	NDC21HJ-271X	C CAPACITOR	270pF 50V J	E,F,G
C517	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	E,F,G
C518	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	E,F,G
C519	NDC21HJ-271X	C CAPACITOR	270pF 50V J	E,F,G
C520	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	E,F,G
C521	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C522	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	E,F,G
C523	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	E,F,G
C524	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	E,F,G
C525	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	E,F,G
C528	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	E,F,G
C529	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C530	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C536	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C539	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	E,F,G
C540	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C541	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	E,F,G
C542	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	E,F,G
C2001	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2002	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C2003	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C2004	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2005	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2006	NCB21HK-682X	C CAPACITOR	6800pF 50V K	
C2007	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C2008	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2009	NCB21HK-821X	C CAPACITOR	820pF 50V K	
C2010	NCB21HK-821X	C CAPACITOR	820pF 50V K	
C2011	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2012	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2051	NCB21HK-331X	C CAPACITOR	330pF 50V K	
C2052	QFV61HJ-823Z	MF CAPACITOR	0.082uF 50V J	

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
C2053	NCB21HK-472X	C CAPACITOR	4700pF 50V K	
C2054	NCB21HK-223X	C CAPACITOR	0.022uF 50V K	
C2055	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2201	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2202	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2203	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C2204	QEKJ0JM-336Z	E CAPACITOR	33uF 6.3V M	
C2205	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2206	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2207	NCB21HK-153X	C CAPACITOR	0.015uF 50V K	
C2208	NCB21HK-153X	C CAPACITOR	0.015uF 50V K	
C2209	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2210	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2211	QEKJ0JM-336Z	E CAPACITOR	33uF 6.3V M	
C2212	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C2214	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	
C2215	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	
C2216	QER61CM-476Z	E CAPACITOR	47uF 16V M	
C2218	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2219	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C2220	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C2221	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C2222	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2230	NDC21HJ-470X	C CAPACITOR	47pF 50V J	
C2231	NDC21HJ-470X	C CAPACITOR	47pF 50V J	
C2234	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C2235	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C2251	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C2252	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2253	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2254	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C2255	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2256	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2257	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C2259	QEKJ1HM-334Z	E CAPACITOR	0.33uF 50V M	
C3011	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	C
C3011	QETN1CM-107Z	E CAPACITOR	100uF 16V M	A,B,D,E,F,G
C3012	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C3014	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C3016	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	
C3022	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	
C3024	NDC21HJ-120X	C CAPACITOR	12pF 50V J	
C3025	QAT3725-300Z	TRIM CAPACITOR	30pF,TIMER CLOCK	C
C3030	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C3031	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	
C3033	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	
C3036	NDC21HJ-180X	C CAPACITOR	18pF 50V J	
C3037	NDC21HJ-120X	C CAPACITOR	12pF 50V J	
C3041	NDC21HJ-180X	C CAPACITOR	18pF 50V J	A,B,D,E,F,G
C3045	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C3047	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C3048	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C3050	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C3052	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C3054	NCB21HK-222X	C CAPACITOR	2200pF 50V K	
C3071	QETJ1HM-336Z	E CAPACITOR	33uF 50V M	
C3301	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C3401	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C4002	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C4004	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C4005	NCB21HK-222X	C CAPACITOR	2200pF 50V K	A,B,C,D
C4005	NDC21HJ-181X	C CAPACITOR	180pF 50V J	E,F,G
C4006	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C4008	QEQF1HM-105Z	E CAPACITOR	1uF 50V M	
C4009	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
C4010	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C4011	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C4012	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C4014	NDC21HJ-101X	C CAPACITOR	100pF 50V J	
C4015	NCB21HK-102X	C CAPACITOR	1000pF 50V K	A,B,C,D
C4015	NDC21HJ-221X	C CAPACITOR	220pF 50V J	E,F,G
C5303	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C5304	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C5305	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C6013	NDC21HJ-120X	C CAPACITOR	12pF 50V J	F
C6020	NDC21HJ-270X	C CAPACITOR	27pF 50V J	F
C6033	NCB21HK-472X	C CAPACITOR	4700pF 50V K	E,F,G
C6054	NDC21HJ-101X	C CAPACITOR	100pF 50V J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C6501	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C6502	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	
C6503	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C6504	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C6505	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	
C6508	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C6509	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C6511	NCB21EK-103X	C CAPACITOR	0.01uF 25V K	
C6512	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C6513	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	
C6514	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	
C6515	QEKC1HM-335Z	E CAPACITOR	3.3uF 50V M	
C6516	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C6517	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6532	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,C,D,E
C7108	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C7109	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	E,F,G
C7110	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C7112	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C7113	QEKJ0JM-337Z	E CAPACITOR	330uF 6.3V M	E,F,G
C7114	QEKJ0JM-337Z	E CAPACITOR	330uF 6.3V M	E,F,G
C7116	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
C7117	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C7118	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	
C7119	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C7120	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7121	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C7123	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	
C7124	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	
C7125	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	
C7128	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C7129	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C7130	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C7131	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	
C7132	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C7133	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C7134	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C7135	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C7136	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C7142	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C7144	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7501	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C7502	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C7503	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	
C7504	NDC21HJ-151X	C CAPACITOR	150pF 50V J	
C7505	NCB21HK-331X	C CAPACITOR	330pF 50V K	
C7506	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C7507	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C7508	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C8001	NCB21HK-332X	C CAPACITOR	3300pF 50V K	
C8002	NCB21HK-332X	C CAPACITOR	3300pF 50V K	
C8003	NCB21HK-471X	C CAPACITOR	470pF 50V K	
C8004	NCB21HK-471X	C CAPACITOR	470pF 50V K	
C8005	NCB21HK-471X	C CAPACITOR	470pF 50V K	
C8006	NCB21HK-471X	C CAPACITOR	470pF 50V K	
C8007	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C8008	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C8009	NCB21HK-222X	C CAPACITOR	2200pF 50V K	
C8010	NCB21HK-222X	C CAPACITOR	2200pF 50V K	
C8051	QEKJ1CM-107Z	E CAPACITOR	100uF 16V M	
C8052	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C8053	NCB21HK-152X	C CAPACITOR	1500pF 50V K	
R1	NRSA02J-622X	MG RESISTOR	6.2kΩ 1/10W J	
R2	NRSA02J-152X	MG RESISTOR	1.5kΩ 1/10W J	
R3	NRSA02J-822X	MG RESISTOR	8.2kΩ 1/10W J	A,B,C,D
R3	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	E,F,G
R4	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	E,F,G
R5	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	E,F,G
R6	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	E,F,G
R11	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R12	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R14	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	E,F,G
R19	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
R27	NRSA02J-122X	MG RESISTOR	1.2kΩ 1/10W J	E,F,G
R36	NRSA02J-272X	MG RESISTOR	2.7kΩ 1/10W J	A,B,C,D
R36	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	E,F,G

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
R37	NRSA02J-153X	MG RESISTOR	15kΩ 1/10W J	
R38	NRSA02J-475X	MG RESISTOR	4.7MΩ 1/10W J	
R39	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	E,F,G
R41	NRSA02J-105X	MG RESISTOR	1MΩ 1/10W J	E,F,G
R201	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R202	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R203	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R204	NRSA02J-474X	MG RESISTOR	470kΩ 1/10W J	
R205	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	
R206	NRSA02J-474X	MG RESISTOR	470kΩ 1/10W J	
R209	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R210	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R211	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R212	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R501	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	E,F,G
R503	NRSA02J-152X	MG RESISTOR	1.5kΩ 1/10W J	E,F,G
R504	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	E,F,G
R505	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	E,F,G
R506	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	E,F,G
R507	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	E,F,G
R508	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	E,F,G
R510	NRSA02J-475X	MG RESISTOR	4.7MΩ 1/10W J	E,F,G
R512	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	E,F,G
R2007	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	
R2010	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	
R2013	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	
R2014	NRSA02J-394X	MG RESISTOR	390kΩ 1/10W J	
R2015	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R2016	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	
R2017	NRSA02J-223X	MG RESISTOR	22kΩ 1/10W J	
R2018	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2019	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2021	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	
R2022	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2023	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2024	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R2053	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	
R2054	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	
R2055	NRSA02J-3R3X	MG RESISTOR	3.3Ω 1/10W J	
R2056	QRE141J-820Y	C RESISTOR	82Ω 1/4W J	
R2057	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R2058	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	
R2059	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R2060	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	
R2201	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R2202	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	
R2203	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	C,E,F,G
R2204	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	C,E,F,G
R2205	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R2206	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	
R2207	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	C,E,F,G
R2208	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	C,E,F,G
R2209	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R2210	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2211	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R2212	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R2213	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2214	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R2216	NRSA02J-122X	MG RESISTOR	1.2kΩ 1/10W J	
R2217	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2218	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R2219	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R2220	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R2221	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R2222	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R2223	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R2224	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R2230	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R2231	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R2251	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R2252	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R2253	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R2254	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	E,F,G
R2255	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	
R2256	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	E,F,G
R2257	NRSA02J-684X	MG RESISTOR	680kΩ 1/10W J	
R3024	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3025	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3026	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3028	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3029	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
R3030	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3031	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3032	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3033	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3034	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3035	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3037	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3038	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3039	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3041	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3042	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3043	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3047	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3048	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R3049	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R3050	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	C,F
R3051	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3053	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3054	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3055	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3058	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3059	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3060	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3061	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R3062	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R3063	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3064	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3065	NRSA02J-271X	MG RESISTOR	270Ω 1/10W J	
R3066	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3067	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3068	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3069	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3070	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3072	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3073	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R3074	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3077	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3080	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3082	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3084	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3085	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R3086	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3087	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3088	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3091	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3092	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R3093	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3094	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3095	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3096	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3098	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3099	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R3100	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3101	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3102	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3205	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	
R3207	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	
R3208	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	
R3209	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	
R3210	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	
R3211	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	
R3212	QRE141J-474Y	C RESISTOR	470kΩ 1/4W J	
R3213	NRSA02J-334X	MG RESISTOR	330kΩ 1/10W J	
R3214	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3215	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3216	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3217	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3218	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3219	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3220	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R3221	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	E,F,G
R3222	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3223	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R3224	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R3225	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
R3229	NRSA02J-105X	MG RESISTOR	1MΩ 1/10W J	
R3232	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3234	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R3235	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R3236	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R3243	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	C,F
R3244	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	
R3246	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3248	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R3253	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R3256	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
R3301	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3302	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3303	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3304	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3305	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3306	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R3307	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R3308	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R3401	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R3402	NRSA02J-271X	MG RESISTOR	270Ω 1/10W J	
R4003	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R4004	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R4005	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	
R4007	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R4009	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R4010	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R4012	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
R4015	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	
R4017	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R5311	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R5312	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5313	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R5316	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	
R5322	QRE121J-681Y	C RESISTOR	680Ω 1/2W J	
R5323	QRE121J-561Y	C RESISTOR	560Ω 1/2W J	
R5324	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6020	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R6021	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R6030	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R6031	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R6034	NRSA02J-105X	MG RESISTOR	1MΩ 1/10W J	E,F,G
R6050	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R6051	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R6502	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R7104	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	E,F,G
R7105	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	E,F,G
R7117	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	E,F,G
R7118	NRSA02J-153X	MG RESISTOR	15kΩ 1/10W J	E,F,G
R7121	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7122	QRE121J-331Y	C RESISTOR	330Ω 1/2W J	E,F,G
R7123	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7124	QRE121J-331Y	C RESISTOR	330Ω 1/2W J	E,F,G
R7129	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
R7130	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
R7131	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	C,E,F,G
R7132	NRVA02D-680X	CMF RESISTOR	68Ω 1/10W D	F
R7132	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	E,G
R7133	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
R7134	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	
R7136	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R7137	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R7138	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	A,B,C,D
R7139	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	E,F,G
R7140	NRVA02D-121X	CMF RESISTOR	120Ω 1/10W D	E,F,G
R7141	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R7142	NRVA02D-101X	CMF RESISTOR	100Ω 1/10W D	E,F,G
R7143	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7145	NRVA02D-471X	CMF RESISTOR	470Ω 1/10W D	E,F,G
R7146	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R7147	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7154	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7155	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7156	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R7164	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	
R7165	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	
R7166	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	
R7173	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	
R7174	NRSA02J-391X	MG RESISTOR	390Ω 1/10W J	
R7175	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	
R7176	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R7176	NRSA02J-391X	MG RESISTOR	390Ω 1/10W J	E,F,G
R7177	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	
R7178	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R7179	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	
R7180	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R7181	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R7182	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R7183	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R7193	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	C,F
R7311	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R7319	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	
R7501	NRSA02J-100X	MG RESISTOR	10Ω 1/10W J	
R7502	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	
R7503	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	
R7504	NRSA02J-820X	MG RESISTOR	82Ω 1/10W J	
R7505	NRSA02J-100X	MG RESISTOR	10Ω 1/10W J	
R7506	NRSA02J-220X	MG RESISTOR	22Ω 1/10W J	
R7507	NRSA02J-104X	MG RESISTOR	100kΩ 1/10W J	
R8001	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R8002	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R8003	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R8004	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	
R8005	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R8006	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R8007	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R8008	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R8009	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	
R8010	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	
R8011	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	
R8012	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	
R8013	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	
R8014	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	
R8015	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	
R8016	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	
R8017	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R8018	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R8051	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	
R8052	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	
R8054	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R8055	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R8056	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
VR2251	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	E,F,G
L1	QQL231J-101Y	COIL	100uH J	E,F,G
L3	QQL29BJ-100Z	P COIL	10uH J	
L5	QQL29BJ-100Z	P COIL	10uH J	
⚠ L6	QQL29BJ-100Z	P COIL	10uH J	
⚠ L7	QQL071J-120Y	COIL	12uH J	
L9	QQL231J-100Y	COIL	10uH J	E,F,G
⚠ L10	QQL29BJ-100Z	P COIL	10uH J	
L201	QQL231J-150Y	COIL	15uH J	
L202	QQL29BJ-100Z	P COIL	10uH J	
L203	QQL231J-560Y	COIL	56uH J	
L501	QQL29BJ-101Z	P COIL	100uH J	E,F,G
L502	QQL29BJ-100Z	P COIL	10uH J	E,F,G
L2251	QQL29BJ-100Z	P COIL	10uH J	
L4001	QQL231J-1R0Y	COIL	1uH J	
L6001	QQL29BK-1R0Z	P COIL	1uH K	
L6003	QQL29BK-1R0Z	P COIL	1uH K	
L7101	QQL29BJ-100Z	P COIL	10uH J	
L7103	QQL29BJ-100Z	P COIL	10uH J	
L7501	QQL231K-1R0Y	COIL	1uH K	
L7502	QQL29BK-1R0Z	P COIL	1uH K	
T2051	PELN0832	OSC TRANS		
B4	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B10	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B11	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B12	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B201	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B503	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
B2201	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,E,F,G
B2202	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,E,F,G
B3003	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B3301	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
B3302	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B3303	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B3304	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B5301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
B5303	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
B5304	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
B6020	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B6022	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B7101	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B7103	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C
B7104	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
B7105	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
B7106	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
B7113	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
B7115	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7191	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,F
B7192	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,F
B7351	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,E,F,G
B7352	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C,E,F,G
B7501	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B7502	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B7504	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
B7506	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
CN1	QGF1201C2-09	CONNECTOR	FFC/FPC (1-9)	
CN2001	QGF1207C1-06	CONNECTOR	FFC/FPC (1-6)	
CN2002	QGB2532J1-02	CONNECTOR	B-B (1-2)	
CN3001	QGB2032M4-12	CONNECTOR	B-B (1-12)	
CN3102	QGF1207C1-14	CONNECTOR	FFC/FPC (1-14)	
CN3103	QGF1207C1-14	CONNECTOR	FFC/FPC (1-14)	
CN5311	QGB1231M1-11	CONNECTOR	B-B (1-11)	
CN5313	QGB1231M1-11	CONNECTOR	B-B (1-11)	
CN7103	QGF1207C1-07	CONNECTOR	FFC/FPC (1-7)	A,B,C,D
CN7103	QGF1207C1-11	CONNECTOR	FFC/FPC (1-11)	E,F,G
CN7301	QGB2027MB-22	CONNECTOR	B-B (1-22)	
⚠ CP3002	NMFZ012-1R0X-M	FUSE	1A	
⚠ CP4002	NMFZ012-1R0X-M	FUSE	1A	
J7002	QNN0526-001	PIN JACK	REAR A/V IN OUT	C
J7002	QNN0586-001	PIN JACK	REAR A/V IN OUT	A,B,D
J7002	QNZ0609-001	AV JACK	REAR A/V IN OUT	E,F,G
J7004	QNZ0652-001	AV JACK	DVD OUT	A,B,C,D
J7004	QNN0588-001	PIN JACK	DVD OUT	E,F,G
J7005	QNN0587-002	PIN JACK	COMPONENT VIDEO OUT	
J7008	QNS0100-001	3.5 JACK	REMOTE PAUSE	C,F
J7009	QNN0347-001	PIN JACK	COAXIAL OUT	
J7010	GP1FA352TZ	OPT TRANSMITTER	OPTICAL OUT	
JS3001	QSW0954-002	ROTARY ENCODER		
K2253	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K7503	NQR0227-004X	FERRITE BEADS		
K7504	NQR0007-002X	FERRITE BEADS		
K7505	NQR0007-002X	FERRITE BEADS		
K7506	NQR0007-002X	FERRITE BEADS		
K7507	NQR0007-002X	FERRITE BEADS		
K7508	NQR0007-002X	FERRITE BEADS		
OT1	LP31158-001A	BOSS(MECHA) 1		
OT2	LP31185-001A	BOSS(MECHA) 2	(x2)	
S3001	QSW0602-004	PUSH SWITCH	REC SAFETY	
S3002	QSW0602-004	PUSH SWITCH	S-VHS	E,F,G
SD1	LP31179-001A	SHILD PLATE(PRE/REC)		
TU6001	QAU0296-001	TUNER		
W1	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W2	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W4	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W6	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W8	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W9	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W10	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W11	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W12	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W13	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W14	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W16	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W17	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W18	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W19	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W20	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W21	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W22	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W23	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W24	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W25	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W26	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W27	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W28	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W29	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W30	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W31	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W32	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W33	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W34	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W35	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W36	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W37	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W38	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W39	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W40	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W41	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W43	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W44	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W45	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W46	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W47	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W48	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W50	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W51	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W52	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W53	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
W55	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W56	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W57	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W58	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W59	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W60	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W61	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W62	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W63	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W64	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W65	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W66	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W69	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W70	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W71	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W72	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W73	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
W74	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W75	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W76	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W77	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W78	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W79	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W80	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W81	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W82	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W83	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W84	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W87	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W88	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W89	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W90	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W91	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W92	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W93	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W96	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
W97	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W98	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W99	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W100	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
W104	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
W105	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
X2	QAX0739-001	CRYSTAL	3.57MHz	
X3001	QAX0444-001	CRYSTAL	32.768kHz	
X3002	QAX0527-001	CRYSTAL	10.000000MHz	

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

MAIN BOARD ASSEMBLY <03> (LPB10221 TYPE)

⚠	Symbol No.		Part No.	Part Name	Description	Local
	PW1		LPA10221-04B	MAIN BOARD ASSY		A,B,D
	PW1		LPA10221-07B	MAIN BOARD ASSY		C
	IC1		JCP8060-NVA	IC		A,B,C,D
	IC1	or	JCP8060-MSA	IC		A,B,C,D
⚠	IC2201		AN3663FBP	IC		A,B,C,D
	IC3001		HD6432199RB02F	IC(MCU)		A,B,C,D
	IC3001	or	HD64F2199RFB02	IC(MCU)		A,B,C,D
	IC3002		IC-PST3427U-X	IC		A,B,C,D
	IC3003		LPN0825-001C-01	IC(EEPROM)	*(REFER TO BELOW)	A,B,D
	IC3003		LPN0825-002C-02	IC(EEPROM)	*(REFER TO BELOW)	C
	IC7102		MM1507XN-X	IC		A,B,C,D
	IC7104		MM1623XF-X	IC		A,B,C,D
	IC7501		74VHCT08ASJ-X	IC		A,B,C,D
	IC8001		HA17558AF-X	IC		A,B,C,D
	IC8001	or	RC4558D-X	IC		A,B,C,D
	Q202		2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q202	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2001		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2001	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q2001	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2002		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2002	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q2002	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2003		UN211E-X	DIGI TRANSISTOR		A,B,C,D
	Q2003	or	DTA144WKA-X	TRANSISTOR		A,B,C,D
	Q2051		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2051	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q2052		2SB709A/QR/-X	TRANSISTOR		A,B,C,D
	Q2052	or	2SA1037AK/QR/-X	TRANSISTOR		A,B,C,D
	Q2052	or	2SA1530A/QR/-X	TRANSISTOR		A,B,C,D
	Q2053		UN221E-X	TRANSTSTOR		A,B,C,D
	Q2053	or	DTC144WKA-X	DIGI TRANSISTOR		A,B,C,D
	Q2053	or	RT1N44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q2054		2SB709A/QR/-X	TRANSISTOR		A,B,C,D
	Q2054	or	2SA1037AK/QR/-X	TRANSISTOR		A,B,C,D
	Q2054	or	2SA1530A/QR/-X	TRANSISTOR		A,B,C,D
	Q2055		UN221E-X	TRANSTSTOR		A,B,C,D
	Q2055	or	DTC144WKA-X	DIGI TRANSISTOR		A,B,C,D
	Q2055	or	RT1N44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q2201		UN211E-X	DIGI TRANSISTOR		A,B,C,D
	Q2201	or	DTA144WKA-X	TRANSISTOR		A,B,C,D
	Q2201	or	RT1P44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q2202		UN221E-X	TRANSTSTOR		A,B,C,D
	Q2202	or	DTC144WKA-X	DIGI TRANSISTOR		A,B,C,D
	Q2202	or	RT1N44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q2203		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2203	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q2203	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2204		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q2204	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q2204	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q3002		PTZ-NV16A	IC(PHOTO SENSOR)		A,B,C,D
	Q3004		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q3004	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q3004	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q3005		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q3005	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q3005	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q3007		UN221E-X	TRANSTSTOR		C
	Q3007	or	DTC144WKA-X	DIGI TRANSISTOR		C
	Q3007	or	RT1N44HC-X	DIGI TRANSISTOR		C
	Q3401		2SD1858/QR/-T	TRANSISTOR		A,B,C,D
	Q4001		UN2211-X	TRANSISTOR		A,B,C,D
	Q4001	or	DTC114EKA-X	TRANSISTOR		A,B,C,D
	Q4001	or	RT1N141C-X	DIGI TRANSISTOR		A,B,C,D
	Q5306		2SD2144S/UV/-T	TRANSISTOR		A,B,C,D
	Q5306	or	2SC3576-JVC-T	TRANSISTOR		A,B,C,D
	Q5307		UN211E-X	DIGI TRANSISTOR		A,B,C,D
	Q5307	or	DTA144WKA-X	TRANSISTOR		A,B,C,D
	Q5307	or	RT1P44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q5309		UN2211-X	TRANSISTOR		A,B,C,D
	Q5309	or	DTC114EKA-X	TRANSISTOR		A,B,C,D
	Q5309	or	RT1N141C-X	DIGI TRANSISTOR		A,B,C,D
	Q5310		2SD1858/QR/-T	TRANSISTOR		A,B,C,D
	Q5312		UN2111-X	TRANSISTOR		A,B,C,D
	Q5312	or	DTA114EKA-X	DIGI TRANSISTOR		A,B,C,D
	Q5312	or	RT1P141C-X	DIGI TRANSISTOR		A,B,C,D
	Q5313		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q5313	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q5313	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q6030		2SB709A/QR/-X	TRANSISTOR		A,B,C,D
	Q6030	or	2SA1037AK/QR/-X	TRANSISTOR		A,B,C,D
	Q6030	or	2SA1530A/QR/-X	TRANSISTOR		A,B,C,D
	Q7113		2SA1037AK/QR/-X	TRANSISTOR		A,B,C,D
	Q7113	or	2SB709A/QR/-X	TRANSISTOR		A,B,C,D
	Q7113	or	2SA1530A/QR/-X	TRANSISTOR		A,B,C,D
	Q7116		UN221E-X	TRANSTSTOR		A,B,C,D
	Q7116	or	DTC144WKA-X	DIGI TRANSISTOR		A,B,C,D
	Q7116	or	RT1N44HC-X	DIGI TRANSISTOR		A,B,C,D
	Q8001		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8001	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q8001	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8002		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8002	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q8002	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8051		UN2211-X	TRANSISTOR		A,B,C,D
	Q8051	or	DTC114EKA-X	TRANSISTOR		A,B,C,D
	Q8051	or	RT1N141C-X	DIGI TRANSISTOR		A,B,C,D
	Q8052		2SD601A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8052	or	2SC2412K/QRS/-X	TRANSISTOR		A,B,C,D
	Q8052	or	2SC3928A/QRS/-X	TRANSISTOR		A,B,C,D
	Q8053		UN2111-X	TRANSISTOR		A,B,C,D
	Q8053	or	DTA114EKA-X	DIGI TRANSISTOR		A,B,C,D
	Q8053	or	RT1P141C-X	DIGI TRANSISTOR		A,B,C,D
	D201		1SS133-T2	DIODE		A,B,C,D
	D2001		1SS133-T2	DIODE		A,B,C,D
	D2001	or	1SS270A-T2	SI DIODE		A,B,C,D
	D2251		1SS133-T2	DIODE		A,B,C,D
	D2251	or	1SS270A-T2	SI DIODE		A,B,C,D
	D3001		LNB2301L01VI	LED		A,B,C,D
	D3002		1SS133-T2	DIODE		A,B,C,D
	D3002	or	1SS270A-T2	SI DIODE		A,B,C,D
	D3003		RD33ES/B3/-T2	Z DIODE		A,B,C,D
	D3003	or	MTZJ33C-T2	Z DIODE		A,B,C,D
	D3004		10EDB20-T2	SI DIODE		A,B,C,D
	D3004	or	1A3G-T2	SI DIODE		A,B,C,D
⚠	D3005		10EDB20-T2	SI DIODE		A,B,C,D
⚠	D3005	or	1A3G-T2	SI DIODE		A,B,C,D
	D3008		1SS133-T2	DIODE		C
	D3008	or	1SS270A-T2	SI DIODE		C
	D3401		RD3.6ES/B2/-T2	Z DIODE		A,B,C,D
	D3401	or	MTZJ3.6B-T2	Z DIODE		A,B,C,D
	D5305		MTZJ11C-T2	Z DIODE		A,B,C,D
	D5305	or	RD11ES/B3/-T2	Z DIODE		A,B,C,D
	D5306		MTZJ5.6C-T2	Z DIODE		A,B,C,D
	D5306	or	RD5.6ES/B3/-T2	Z DIODE		A,B,C,D
	D5307		1SS133-T2	DIODE		A,B,C,D
	D5307	or	1SS270A-T2	SI DIODE		A,B,C,D
	D6002		HZ30-2L-T2	Z DIODE		A,B,C,D
	D6002	or	HZ30-2LTD	Z DIODE		A,B,C,D
	D8001		1SS133-T2	DIODE		A,B,C,D
	D8001	or	1SS270A-T2	SI DIODE		A,B,C,D
	PC3001		RPI-304J	IC(PHOTO SENSOR)		A,B,C,D
	PC3002		RPI-304J	IC(PHOTO SENSOR)		A,B,C,D
	C1		NDC21HJ-151X	C CAPACITOR	150pF 50V J	A,B,C,D
	C2		NDC21HJ-330X	C CAPACITOR	33pF 50V J	A,B,C,D
	C4		QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
	C5		NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
	C6		NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
	C7		NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
	C8		NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
	C9		QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	A,B,C,D
	C10		QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
	C11		NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
	C12		NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
	C13		NCF21CZ-105X	C CAPACITOR	1uF 16V Z	C
	C14		NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
	C15		NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
	C17		NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D

*The VCR goes to jig RCU mode after replacing the EEPROM and the VCR does not accept some RCU command.
Therefore please set the VCR to the user RCU mode after replacing the EEPROM.
The method of setting the VCR to the user RCU mode is written on the service manual.

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
C19	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C20	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C22	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C24	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C25	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	A,B,C,D
C26	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C27	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C30	NCB21HK-331X	C CAPACITOR	330pF 50V K	A,B,C,D
C31	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C32	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	A,B,C,D
C33	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C34	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C35	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C36	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C37	NDC21HJ-4R0X	C CAPACITOR	4pF 50V J	A,B,C,D
C39	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C40	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C41	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C43	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	A,B,C,D
C44	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	A,B,C,D
C45	NCB21HK-472X	C CAPACITOR	4700pF 50V K	A,B,C,D
C46	NCB21EK-333X	C CAPACITOR	0.033uF 25V K	A,B,C,D
C47	QEKJ1HM-474Z	E CAPACITOR	0.47uF 50V M	A,B,C,D
C48	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C49	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C56	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C57	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C58	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C59	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C60	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C61	QEKC0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C62	QCBB1HK-103Y	C CAPACITOR	0.01uF 50V K	A,B,C,D
C63	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
C201	NDC21HJ-220X	C CAPACITOR	22pF 50V J	A,B,C,D
C202	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C203	NCB21HK-102X	C CAPACITOR	1000pF 50V K	A,B,C,D
C204	NCB21HK-681X	C CAPACITOR	680pF 50V K	A,B,C,D
C205	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C206	NCB21HK-681X	C CAPACITOR	680pF 50V K	A,B,C,D
C207	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C209	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C210	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C212	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C213	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2001	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2002	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C2003	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C2004	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2005	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2006	NCB21HK-682X	C CAPACITOR	6800pF 50V K	A,B,C,D
C2007	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C2008	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2009	NCB21HK-821X	C CAPACITOR	820pF 50V K	A,B,C,D
C2010	NCB21HK-821X	C CAPACITOR	820pF 50V K	A,B,C,D
C2011	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2012	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2051	NCB21HK-331X	C CAPACITOR	330pF 50V K	A,B,C,D
C2052	QFV61HJ-823Z	MF CAPACITOR	0.082uF 50V J	A,B,C,D
C2053	NCB21HK-472X	C CAPACITOR	4700pF 50V K	A,B,C,D
C2054	NCB21HK-223X	C CAPACITOR	0.022uF 50V K	A,B,C,D
C2055	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2201	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2202	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2203	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C2204	QEKJ0JM-336Z	E CAPACITOR	33uF 6.3V M	A,B,C,D
C2205	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2206	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2207	NCB21HK-153X	C CAPACITOR	0.015uF 50V K	A,B,C,D
C2208	NCB21HK-153X	C CAPACITOR	0.015uF 50V K	A,B,C,D
C2209	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2210	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2211	QEKJ0JM-336Z	E CAPACITOR	33uF 6.3V M	A,B,C,D
C2212	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C2214	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2215	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2216	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	A,B,C,D
C2218	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2219	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C2220	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C2221	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C2222	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2230	NDC21HJ-470X	C CAPACITOR	47pF 50V J	A,B,C,D
C2231	NDC21HJ-470X	C CAPACITOR	47pF 50V J	A,B,C,D
C2234	NCB21AK-105X	C CAPACITOR	1uF 10V K	A,B,C,D
C2235	NCB21AK-105X	C CAPACITOR	1uF 10V K	A,B,C,D
C2251	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2252	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2253	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2254	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C2255	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2256	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2257	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C2259	QEKJ1HM-334Z	E CAPACITOR	0.33uF 50V M	A,B,C,D
C3011	QETN1CM-107Z	E CAPACITOR	100uF 16V M	A,B,D
C3011	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	C
C3012	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C3014	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C3016	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	A,B,C,D
C3022	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	A,B,C,D
C3024	NDC21HJ-120X	C CAPACITOR	12pF 50V J	A,B,C,D
C3025	QAT3725-300Z	TRIM CAPACITOR	30pF,TIMER CLOCK	C
C3030	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C3031	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	A,B,C,D
C3033	NCB21EK-473X	C CAPACITOR	0.047uF 25V K	A,B,C,D
C3036	NDC21HJ-180X	C CAPACITOR	18pF 50V J	A,B,C,D
C3037	NDC21HJ-120X	C CAPACITOR	12pF 50V J	A,B,C,D
C3041	NDC21HJ-180X	C CAPACITOR	18pF 50V J	A,B,D
C3045	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C3047	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C3048	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C3050	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C3052	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C3054	NCB21HK-222X	C CAPACITOR	2200pF 50V K	A,B,C,D
C3071	QETJ1HM-336Z	E CAPACITOR	33uF 50V M	A,B,C,D
C3401	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C4002	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C4004	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C4005	NCB21HK-222X	C CAPACITOR	2200pF 50V K	A,B,C,D
C4006	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C4008	QEQF1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C4009	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
C4010	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C4011	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C4012	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C4014	NDC21HJ-101X	C CAPACITOR	100pF 50V J	A,B,C,D
C4015	NCB21HK-102X	C CAPACITOR	1000pF 50V K	A,B,C,D
C5303	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	A,B,C,D
C5304	QETN1CM-107Z	E CAPACITOR	100uF 16V M	A,B,C,D
C5305	QETN1AM-107Z	E CAPACITOR	100uF 10V M	A,B,C,D
C6013	NDC21HJ-120X	C CAPACITOR	12pF 50V J	A,B,C,D
C6020	NDC21HJ-270X	C CAPACITOR	27pF 50V J	A,B,C,D
C6054	NDC21HJ-101X	C CAPACITOR	100pF 50V J	A,B,C,D
C6501	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C6502	QEKC1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C6503	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	A,B,C,D
C6504	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	A,B,C,D
C6505	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	A,B,C,D
C6508	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C6509	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C6511	NCB21EK-103X	C CAPACITOR	0.01uF 25V K	A,B,C,D
C6512	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C6513	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	A,B,C,D
C6514	NCB21EK-223X	C CAPACITOR	0.022uF 25V K	A,B,C,D
C6515	QEKJ1HM-335Z	E CAPACITOR	3.3uF 50V M	A,B,C,D
C6516	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	A,B,C,D
C6517	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	A,B,C,D
C6532	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C7114	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7117	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C7118	QEKJ1EM-106Z	E CAPACITOR	10uF 25V M	A,B,C,D
C7119	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C7120	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7121	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C7123	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7124	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D
C7125	QETJ0JM-477Z	E CAPACITOR	470uF 6.3V M	A,B,C,D

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
C7128	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C7129	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C7131	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	A,B,C,D
C7132	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C7133	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C7134	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C7135	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
C7136	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	A,B,C,D
C7501	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C7502	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C7503	QEKJ1HM-475Z	E CAPACITOR	4.7uF 50V M	A,B,C,D
C7504	NDC21HJ-151X	C CAPACITOR	150pF 50V J	A,B,C,D
C7505	NCB21HK-331X	C CAPACITOR	330pF 50V K	A,B,C,D
C7506	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C7507	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	A,B,C,D
C7508	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	A,B,C,D
C8001	NCB21HK-332X	C CAPACITOR	3300pF 50V K	A,B,C,D
C8002	NCB21HK-332X	C CAPACITOR	3300pF 50V K	A,B,C,D
C8003	NCB21HK-471X	C CAPACITOR	470pF 50V K	A,B,C,D
C8004	NCB21HK-471X	C CAPACITOR	470pF 50V K	A,B,C,D
C8005	NCB21HK-471X	C CAPACITOR	470pF 50V K	A,B,C,D
C8006	NCB21HK-471X	C CAPACITOR	470pF 50V K	A,B,C,D
C8007	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C8008	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	A,B,C,D
C8009	NCB21HK-222X	C CAPACITOR	2200pF 50V K	A,B,C,D
C8010	NCB21HK-222X	C CAPACITOR	2200pF 50V K	A,B,C,D
C8051	QEKJ1CM-107Z	E CAPACITOR	100uF 16V M	A,B,C,D
C8052	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	A,B,C,D
C8053	NCB21HK-152X	C CAPACITOR	1500pF 50V K	A,B,C,D
R1	NRSA02J-622X	MG RESISTOR	6.2kΩ 1/10W J	A,B,C,D
R2	NRSA02J-152X	MG RESISTOR	1.5kΩ 1/10W J	A,B,C,D
R3	NRSA02J-822X	MG RESISTOR	8.2kΩ 1/10W J	A,B,C,D
R11	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R12	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R36	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R37	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R201	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R202	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R203	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R204	NRSA02J-474X	MG RESISTOR	470kΩ 1/10W J	A,B,C,D
R205	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	A,B,C,D
R206	NRSA02J-474X	MG RESISTOR	470kΩ 1/10W J	A,B,C,D
R210	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
R211	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R212	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R2007	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	A,B,C,D
R2010	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	A,B,C,D
R2013	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	A,B,C,D
R2014	NRSA02J-394X	MG RESISTOR	390kΩ 1/10W J	A,B,C,D
R2015	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R2016	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	A,B,C,D
R2017	NRSA02J-223X	MG RESISTOR	22kΩ 1/10W J	A,B,C,D
R2018	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2019	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2021	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	A,B,C,D
R2022	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	A,B,C,D
R2023	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	A,B,C,D
R2024	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R2053	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	A,B,C,D
R2054	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	A,B,C,D
R2055	NRSA02J-3R3X	MG RESISTOR	3.3Ω 1/10W J	A,B,C,D
R2056	QRE141J-820Y	C RESISTOR	82Ω 1/4W J	A,B,C,D
R2057	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R2058	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	A,B,C,D
R2059	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R2060	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	A,B,C,D
R2201	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R2202	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	A,B,C,D
R2203	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	C
R2204	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	C
R2205	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R2206	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	A,B,C,D
R2207	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	C
R2208	NRSA02J-682X	MG RESISTOR	6.8kΩ 1/10W J	C
R2209	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R2210	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2211	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R2212	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R2213	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2214	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R2216	NRSA02J-122X	MG RESISTOR	1.2kΩ 1/10W J	A,B,C,D
R2217	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2218	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R2219	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R2220	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R2221	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R2222	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R2223	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	A,B,C,D
R2224	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	A,B,C,D
R2230	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R2231	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R2251	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R2252	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R2255	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	A,B,C,D
R2257	NRSA02J-684X	MG RESISTOR	680kΩ 1/10W J	A,B,C,D
R3033	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	A,B,C,D
R3034	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	A,B,C,D
R3043	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R3048	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R3049	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R3050	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	C
R3051	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	A,B,C,D
R3058	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R3061	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	A,B,C,D
R3062	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	A,B,C,D
R3063	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R3064	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R3065	NRSA02J-271X	MG RESISTOR	270Ω 1/10W J	A,B,C,D
R3069	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	A,B,C,D
R3077	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R3080	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	A,B,C,D
R3085	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	A,B,C,D
R3098	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	A,B,C,D
R3101	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R3205	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	A,B,C,D
R3207	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	A,B,C,D
R3208	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	A,B,C,D
R3209	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	A,B,C,D
R3210	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	A,B,C,D
R3211	NRSA02J-183X	MG RESISTOR	18kΩ 1/10W J	A,B,C,D
R3212	QRE141J-474Y	C RESISTOR	470kΩ 1/4W J	A,B,C,D
R3213	NRSA02J-334X	MG RESISTOR	330kΩ 1/10W J	A,B,C,D
R3214	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3215	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3216	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3217	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3218	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R3219	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R3220	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	A,B,C,D
R3222	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3223	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R3224	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R3225	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3229	NRSA02J-105X	MG RESISTOR	1MΩ 1/10W J	A,B,C,D
R3234	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R3235	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	A,B,C,D
R3236	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	A,B,C,D
R3243	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	C
R3244	NRSA02J-333X	MG RESISTOR	33kΩ 1/10W J	A,B,C,D
R3246	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R3248	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R3256	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	A,B,C,D
R3301	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R3302	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R3303	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R3304	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	A,B,C,D
R3305	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R3306	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	A,B,C,D
R3307	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	A,B,C,D
R3308	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	A,B,C,D
R3401	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	A,B,C,D
R3402	NRSA02J-271X	MG RESISTOR	270Ω 1/10W J	A,B,C,D
R4003	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	A,B,C,D
R4004	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	A,B,C,D
R4005	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	A,B,C,D

MODEL	MARK	MODEL	MARK
HR-XVC30US	A	HR-XVS44UC	E
HR-XVC33UC	B	HR-XVS44UJ	F
HR-XVC33UM	C	HR-XVS44US	G
HR-XVC33US	D		

⚠ Symbol No.	Part No.	Part Name	Description	Local
R4007	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R4009	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R4012	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	A,B,C,D
R4015	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	A,B,C,D
R4017	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R5311	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	A,B,C,D
R5312	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	A,B,C,D
R5313	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	A,B,C,D
R5316	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	A,B,C,D
R5322	QRE121J-681Y	C RESISTOR	680Ω 1/2W J	A,B,C,D
R5323	QRE121J-561Y	C RESISTOR	560Ω 1/2W J	A,B,C,D
R5324	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	A,B,C,D
R6020	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R6021	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	A,B,C,D
R6030	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R6031	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	A,B,C,D
R6050	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
R6051	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	A,B,C,D
R6502	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	A,B,C,D
R7131	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	C
R7134	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7136	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R7137	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	A,B,C,D
R7138	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R7154	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7155	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	A,B,C,D
R7156	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R7164	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7165	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7166	NRVA02D-750X	CMF RESISTOR	75Ω 1/10W D	A,B,C,D
R7173	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	A,B,C,D
R7174	NRSA02J-391X	MG RESISTOR	390Ω 1/10W J	A,B,C,D
R7175	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	A,B,C,D
R7176	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R7177	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	A,B,C,D
R7178	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R7179	NRVA02D-390X	CMF RESISTOR	39Ω 1/10W D	A,B,C,D
R7180	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	A,B,C,D
R7181	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R7182	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	A,B,C,D
R7193	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	C
R7501	NRSA02J-100X	MG RESISTOR	10Ω 1/10W J	A,B,C,D
R7502	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	A,B,C,D
R7503	NRSA02J-301X	MG RESISTOR	300Ω 1/10W J	A,B,C,D
R7504	NRSA02J-820X	MG RESISTOR	82Ω 1/10W J	A,B,C,D
R7505	NRSA02J-100X	MG RESISTOR	10Ω 1/10W J	A,B,C,D
R7506	NRSA02J-220X	MG RESISTOR	22Ω 1/10W J	A,B,C,D
R7507	NRSA02J-104X	MG RESISTOR	100kΩ 1/10W J	A,B,C,D
R8001	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R8002	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R8003	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R8004	NRSA02J-392X	MG RESISTOR	3.9kΩ 1/10W J	A,B,C,D
R8005	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R8006	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R8007	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R8008	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	A,B,C,D
R8009	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	A,B,C,D
R8010	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	A,B,C,D
R8011	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	A,B,C,D
R8012	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	A,B,C,D
R8013	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	A,B,C,D
R8014	NRSA02J-273X	MG RESISTOR	27kΩ 1/10W J	A,B,C,D
R8015	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	A,B,C,D
R8016	NRSA02J-821X	MG RESISTOR	820Ω 1/10W J	A,B,C,D
R8017	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R8018	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R8051	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	A,B,C,D
R8052	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	A,B,C,D
R8054	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
R8055	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	A,B,C,D
R8056	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	A,B,C,D
L3	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L5	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
⚠ L6	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
⚠ L7	QQL071J-120Y	COIL	12uH J	A,B,C,D
⚠ L10	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L201	QQL231J-150Y	COIL	15uH J	A,B,C,D
L202	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L2251	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L4001	QQL231K-1R0Y	COIL	1uH K	A,B,C,D
L6001	QQL29BK-1R0Z	P COIL	1uH K	A,B,C,D
L6003	QQL29BK-1R0Z	P COIL	1uH K	A,B,C,D
L7101	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L7103	QQL29BJ-100Z	P COIL	10uH J	A,B,C,D
L7501	QQL231K-1R0Y	COIL	1uH K	A,B,C,D
L7502	QQL29BK-1R0Z	P COIL	1uH K	A,B,C,D
T2051	PELN0832	OSC TRANS		A,B,C,D
B201	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B2201	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C
B2202	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C
B3003	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B5301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	A,B,C,D
B6020	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B6022	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7101	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7191	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C
B7192	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	C
B7501	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7502	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7504	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
B7506	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
CN1	QGF1201C2-09	CONNECTOR	FFC/FPC (1-9)	A,B,C,D
CN2001	QGF1207C1-06	CONNECTOR	FFC/FPC (1-6)	A,B,C,D
CN2002	QGB2532J1-02	CONNECTOR	B-B (1-2)	A,B,C,D
CN3001	QGB2032M4-12	CONNECTOR	B-B (1-12)	A,B,C,D
CN3102	QGF1207C1-14	CONNECTOR	FFC/FPC (1-14)	A,B,C,D
CN3103	QGF1207C1-14	CONNECTOR	FFC/FPC (1-14)	A,B,C,D
CN5311	QGB1231M1-11	CONNECTOR	B-B (1-11)	A,B,C,D
CN5313	QGB1231M1-11	CONNECTOR	B-B (1-11)	A,B,C,D
CN7103	QGF1207C1-07	CONNECTOR	FFC/FPC (1-7)	A,B,C,D
CN7301	QGB2027MB-22	CONNECTOR	B-B (1-22)	A,B,C,D
⚠ CP3002	NMFZ012-1R0X-M	FUSE	1A	A,B,C,D
⚠ CP4002	NMFZ012-1R0X-M	FUSE	1A	A,B,C,D
J7002	QNN0586-001	PIN JACK	REAR A/V IN OUT	A,B,D
J7002	QNN0526-001	PIN JACK	REAR A/V IN OUT	C
J7004	QNZ0652-001	AV JACK	DVD OUT	A,B,C,D
J7005	QNN0587-002	PIN JACK	COMPONENT VIDEO OUT	A,B,C,D
J7008	QNS0100-001	3.5 JACK	REMOTE PAUSE	C
J7009	QNN0347-001	PIN JACK	COAXIAL OUT	A,B,C,D
J7010	GP1FA352TZ	OPT TRANSMITTER	OPTICAL OUT	A,B,C,D
JS3001	QSW0954-003	ROTARY ENCODER		A,B,C,D
K7503	NQR0227-004X	FERRITE BEADS		A,B,C,D
K7504	NQR0007-002X	FERRITE BEADS		A,B,C,D
K7505	NQR0007-002X	FERRITE BEADS		A,B,C,D
K7506	NQR0007-002X	FERRITE BEADS		A,B,C,D
K7507	NQR0007-002X	FERRITE BEADS		A,B,C,D
K7508	NQR0007-002X	FERRITE BEADS		A,B,C,D
OT1	LP31158-001A	BOSS(MECHA) 1		A,B,C,D
OT2	LP31185-001A	BOSS(MECHA) 2	(x2)	A,B,C,D
S3001	QSW0602-004	PUSH SWITCH	REC SAFETY	A,B,C,D
SD1	LP31179-001A	SHILD PLATE(PRE/REC)		A,B,C,D
TU6001	QAU0296-001	TUNER		A,B,C,D
W1	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W2	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W4	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W5	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W6	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W7	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W8	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W9	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W11	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W12	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W13	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W14	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W16	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W17	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W18	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W19	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W20	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W23	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W24	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W25	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W26	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W27	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D

⚠ Symbol No.	Part No.	Part Name	Description	Local
W28	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W29	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W30	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
W67	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	A,B,C,D
X2	QAX0739-001	CRYSTAL	3.57MHz	A,B,C,D
X3001	QAX0444-001	CRYSTAL	32.768kHz	A,B,C,D
X3002	QAX0527-001	CRYSTAL	10.000000MHz	A,B,C,D

2D DIGITAL BOARD ASSEMBLY <05>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10162-06A	2D DIGITAL BOARD ASSY		E,F,G
IC1201	JCP8036	IC		E,F,G
IC1201 or	JCP8057	IC		E,F,G
Q1201	2SC1317/RS/-T	TRANSISTOR		E,F,G
Q1202	2SA1576A/QR/-X	TRANSISTOR		E,F,G
Q1202 or	2PA1576/R/-X	TRANSISTOR		E,F,G
Q1203	2SA1576A/QR/-X	TRANSISTOR		E,F,G
Q1203 or	2PA1576/R/-X	TRANSISTOR		E,F,G
Q1204	2SC4081/QRS/-X	TRANSISTOR		E,F,G
Q1204 or	2PC4081/R/-X	TRANSISTOR		E,F,G
Q1205	2SC4081/S/-X	TRANSISTOR		E,F,G
D1201	RD4.3ES/B3/-T2	Z DIODE		E,F,G
C1201	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
C1208	NDC21HJ-101X	C CAPACITOR	100pF 50V J	E,F,G
C1211	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
C1212	NCB21HK-102X	C CAPACITOR	1000pF 50V K	E,F,G
C1213	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1214	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	E,F,G
C1215	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
C1216	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1217	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1218	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1219	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	E,F,G
C1220	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
C1227	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	E,F,G
C1228	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	E,F,G
C1229	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C1230	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1231	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1232	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1233	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	E,F,G
C1234	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1235	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
C1236	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1237	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	E,F,G
C1243	NCB21HK-103X	C CAPACITOR	0.01uF 50V K	E,F,G
C1244	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	E,F,G
C1246	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	E,F,G
R1201	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	E,F,G
R1202	NRSA02J-101X	MG RESISTOR	100Ω 1/10W J	E,F,G
R1203	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	E,F,G
R1204	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	E,F,G
R1205	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	E,F,G
R1206	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	E,F,G
R1207	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	E,F,G
R1208	NRSA02J-123X	MG RESISTOR	12kΩ 1/10W J	E,F,G
R1209	NRSA02J-180X	MG RESISTOR	18Ω 1/10W J	E,F,G
R1210	NRVA02D-393X	CMF RESISTOR	39kΩ 1/10W D	E,F,G
R1211	NRVA02D-183X	CMF RESISTOR	18kΩ 1/10W D	E,F,G
R1212	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	E,F,G
R1214	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
R1215	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	E,F,G
R1217	NRVA02D-680X	CMF RESISTOR	68Ω 1/10W D	E,F,G
R1218	NRVA02D-301X	CMF RESISTOR	300Ω 1/10W D	E,F,G
R1220	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R1222	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	E,F,G
R1224	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	E,F,G

⚠ Symbol No.	Part No.	Part Name	Description	Local
L1202	QQL29BJ-101Z	P COIL	100uH J	E,F,G
L1203	QQL29BJ-101Z	P COIL	100uH J	E,F,G
L1204	QQL29BJ-101Z	P COIL	100uH J	E,F,G
L1207	QQL29BJ-101Z	P COIL	100uH J	E,F,G
BK1	LP40425-001A	BRACKET(PWB)		E,F,G
CN1201	QGG2502K1-12	CONNECTOR	(1-12)	E,F,G
⚠ LC1201	QQL29BJ-101Z	P COIL	100uH J	E,F,G
W1251	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G

A/C HEAD BOARD ASSEMBLY <12>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10158-01A1	A/C HEAD BARD ASSY		

DISPLAY BOARD ASSEMBLY <28>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10206-04B2	DISPLAY BOARD ASSY		
IC7001	MN101C35DJC	IC(MCU)		
IC7002	GP1UM281XK	IR DETECT UNIT	38kHz	
IC7002 or	PNA4652M00XB	IR DETECT UNIT	38kHz	
IC7003	SN74HCT08APW-X	IC		
D7002	SLR-325MC-T	LED		
D7002 or	LTL-816GE-T	LED		
D7021	RD6.8ES/B1/-T2	Z DIODE		
D7021 or	MTZJ6.8A-T2	Z DIODE		
C7001	QEKJ0JM-107Z	E CAPACITOR	100uF 6.3V M	
C7002	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C7003	QEKJ1HM-106Z	E CAPACITOR	10uF 50V M	
C7008	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C7009	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
C7011	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C7017	NCF21EZ-104X	C CAPACITOR	0.1uF 25V Z	
R7001	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7002	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7003	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7005	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R7006	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R7007	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R7010	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R7011	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R7012	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R7013	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
R7014	NRSA02J-272X	MG RESISTOR	2.7kΩ 1/10W J	
R7015	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R7020	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R7021	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R7022	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R7023	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
R7024	NRSA02J-272X	MG RESISTOR	2.7kΩ 1/10W J	
R7026	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7033	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R7034	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R7035	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R7036	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R7037	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7039	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7040	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7041	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7042	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7044	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7046	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7048	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	
R7051	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
CN7003	QGF1201F2-14	CONNECTOR	FFC/FPC (1-14)	
CN7004	QGF1201F2-14	CONNECTOR	FFC/FPC (1-14)	
DI7001	QLF0123-001	FL TUBE		
FW7002	QUM023-06A4A4	PARA RIBON WIRE		
HD1	PQ34949-1-1	FDP HOLDER(L)		
HD2	PQ34950-1-1	FDP HOLDER(R)		
S7001	QSW0456-002Z	TACT SWITCH	OPEN/CLOSE	
S7002	QSW0456-002Z	TACT SWITCH	PROGRESSIVE SCAN	
S7003	QSW0456-002Z	TACT SWITCH	CH +	
S7004	QSW0456-002Z	TACT SWITCH	FF	
S7005	QSW0456-002Z	TACT SWITCH	REW	
S7006	QSW0456-002Z	TACT SWITCH	REC	
S7010	QSW0456-002Z	TACT SWITCH	CH -	
S7011	QSW0456-002Z	TACT SWITCH	PLAY	
S7012	QSW0456-002Z	TACT SWITCH	STOP	
S7013	QSW0456-002Z	TACT SWITCH	VCR/DVD	
X7001	QAX0246-001Z	C RESONATOR	8.00MHz	

JACK BOARD ASSEMBLY <36>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10206-04B3	JACK BOARD ASSY		A,B,C,D
PW1	LPA10206-12B3	JACK BOARD ASSY		E,F,G
D7001	SLR-325MC-T	LED		
D7001 or	LTL-816GE-T	LED		
C7196	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	E,F,G
R7025	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R7191	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	
R7192	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R7193	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
R7194	NRSA02J-750X	MG RESISTOR	75Ω 1/10W J	E,F,G
L7193	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
CN7191	QGF1201F2-07	CONNECTOR	FFC/FPC (1-7)	A,B,C,D
CN7191	QGF1201F2-11	CONNECTOR	FFC/FPC (1-11)	E,F,G
J7191	QNN0591-002	PIN JACK	FRONT AV INPUT	
J7194	QND0084-001	S JACK	FRONT S INPUT	E,F,G
S7014	QSW0456-002Z	TACT SWITCH	POWER	
S7015	QSW0456-002Z	TACT SWITCH	VHS EJECT	

LOADING MOTOR BOARD ASSEMBLY <55>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	LPA10158-01A2	LOADING MOTOR BOARD ASSY		

SWITCH BOARD ASSEMBLY <98>

⚠ Symbol No.	Part No.	Part Name	Description	Local
CN1	QGF1016F3-05	CONNECTOR	FFC/FPC (1-5)	
S1	QSW1007-001	DETECT SWITCH	DET SW	

DVD SERVO CONTROL BOARD ASSEMBLY <99>

⚠ Symbol No.	Part No.	Part Name	Description	Local
IC101	AN8703FH-V	IC		
IC201	BA5983FM-X	IC		
IC251	BA6664FM-X	IC		
IC301	MN103S26EDC-H	IC		
IC301 or	MN103S26EGB-H	IC		
IC402	AK4381VT-X	IC		
IC501	JCE8045	IC		A,B,C,D
IC501 or	NDV8601VWA-BE	IC		A,B,C,D
IC501	NDV8604VWA	IC		E,F,G
IC501 or	NDV8611VWA	IC		E,F,G
IC505	K4S643232F-TC60	IC		
IC505 or	K4S643232E-TC60	IC		
IC505 or	W986432DH-7	IC		
IC505 or	HY57643220CT55	IC		
IC505 or	HY57643220CT7	IC		
IC509	SST39VF160H0C60	IC (FLASH)	(SERVICE)	C
IC509	SST39VF160H0AB0	IC (FLASH)	(SERVICE)	A,B,D
IC509	SST39VF160H0A92	IC (FLASH)	(SERVICE)	E,F,G
IC511	LM1117MP1.8-X	IC		
IC512	74LCX373MTC-X	IC(DIGITAL)		
IC512 or	74LVC373APW-X	IC(DIGITAL)		
IC513	74LCX373MTC-X	IC(DIGITAL)		
IC513 or	74LVC373APW-X	IC(DIGITAL)		
Q101	2SB1424/R/-W	TRANSISTOR		
Q101 or	KTA1001/Y/-X	TRANSISTOR		
Q102	2SB1424/R/-W	TRANSISTOR		
Q102 or	KTA1001/Y/-X	TRANSISTOR		
Q103	DTA144EE-X	DIGI TRANSISTOR		
D101	RB521S-30-X	SB DIODE		
D301	RB521S-30-X	SB DIODE		
C105	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C106	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C109	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C110	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C111	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C112	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C116	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C117	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C118	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
C119	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C120	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C121	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C122	NCS31HJ-120X	C CAPACITOR	12pF 50V J	
C123	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C124	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
C125	NCB31HK-271X	C CAPACITOR	270pF 50V K	
C126	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C127	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C128	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C129	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C135	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C137	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C138	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C141	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C142	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C144	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C204	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C205	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
C207	NCB31HK-391X	C CAPACITOR	390pF 50V K	
C208	NCB31HK-391X	C CAPACITOR	390pF 50V K	
C211	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C212	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C216	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C217	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C218	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C251	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C253	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C255	NCB31CK-153X	C CAPACITOR	0.015uF 16V K	
C256	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C257	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C258	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C259	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C260	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C261	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C262	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C263	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C264	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C301	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C302	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C303	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C304	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C306	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C308	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C310	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C311	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C312	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C313	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C314	NCB31HK-331X	C CAPACITOR	330pF 50V K	
C315	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C316	NCB31HK-271X	C CAPACITOR	270pF 50V K	
C317	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
C318	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C319	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C320	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C321	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C322	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
C323	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C324	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C325	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
C326	NCB31CK-183X	C CAPACITOR	0.018uF 16V K	
C327	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C328	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C329	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C330	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C331	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C332	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C333	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C334	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C337	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C338	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C339	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C340	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C341	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C342	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C343	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C344	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C345	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C346	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C347	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C348	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C349	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C350	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C351	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C360	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C400	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C407	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C408	NEA70JM-227X	E CAPACITOR	220uF 6.3V M	
C409	NEA70JM-227X	E CAPACITOR	220uF 6.3V M	
C502	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C503	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C504	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C505	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C506	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C507	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C508	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C509	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C510	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C512	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C514	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C515	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C516	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C517	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C518	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C519	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C520	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C521	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C523	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C524	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C527	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C528	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C529	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C531	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C532	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C533	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C534	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C535	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C536	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C537	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C538	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C539	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C540	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C541	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C542	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C543	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C544	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C545	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C546	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C547	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C548	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C549	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C550	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C551	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C554	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C556	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C557	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C558	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C559	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C560	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C561	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C562	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C563	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C566	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C567	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C568	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C569	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C572	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C573	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C578	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C581	NEA70GM-227X	E CAPACITOR	220uF 4V M	
C596	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
R101	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R102	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R103	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R104	NRS125J-270X	MG RESISTOR	27Ω 1/2W J	
R105	NRS125J-270X	MG RESISTOR	27Ω 1/2W J	
R106	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R107	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R109	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R110	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R111	NRVA63D-243X	CMF RESISTOR	24kΩ 1/16W D	
R112	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R113	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R115	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R116	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R117	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R119	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J	
R120	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J	
R125	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R126	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R127	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R128	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J	
R129	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J	
R130	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R201	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R202	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J	
R204	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R205	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R206	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J	
R207	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R208	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R209	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R210	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R211	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R212	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R213	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R214	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R215	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R216	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J	
R219	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R220	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	
R221	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R222	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R223	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J	
R230	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R251	NRS125J-R47X	MG RESISTOR	0.47Ω 1/2W J	
R252	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J	
R254	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J	
R255	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R256	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R259	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R280	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R301	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R302	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R303	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R304	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R305	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R306	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R307	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R308	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R309	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R313	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R317	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R320	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R321	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R323	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R324	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R325	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R326	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R327	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R328	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R329	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R330	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R331	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R332	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R333	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R334	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R336	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R337	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R338	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R339	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R340	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R341	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R342	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R343	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R344	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R345	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R403	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R404	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R501	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R512	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R513	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R514	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R515	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R519	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R520	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R523	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R524	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R525	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R526	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R527	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R528	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R529	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R550	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R565	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R566	NRVA63D-122X	CMF RESISTOR	1.2kΩ 1/16W D	
R567	NRVA63D-102X	CMF RESISTOR	1kΩ 1/16W D	
R568	NRVA63D-102X	CMF RESISTOR	1kΩ 1/16W D	
R569	NRVA63D-102X	CMF RESISTOR	1kΩ 1/16W D	
R570	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R572	NRVA63D-102X	CMF RESISTOR	1kΩ 1/16W D	
R573	NRSA63J-162X	MG RESISTOR	1.6kΩ 1/16W J	
R574	NRSA63J-162X	MG RESISTOR	1.6kΩ 1/16W J	
R575	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R576	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R578	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R583	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R584	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R589	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R590	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R591	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R592	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R593	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R594	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L501	NQL044K-100X	COIL	10uH K	
CN101	QGF0523F1-24W	CONNECTOR	FFC/FPC (1-24)	
CN201	QGF1016F2-15W	CONNECTOR	FFC/FPC (1-15)	
CN202	QGF1016F2-05W	CONNECTOR	FFC/FPC (1-5)	
CN501	QGB2027L1-22X	CONNECTOR	B-B (1-22)	
CN502	QGB2027L1-22X	CONNECTOR	B-B (1-22)	
K101	NRSA02J-151X	MG RESISTOR	150Ω 1/10W J	
K201	NQR0129-002X	FERRITE BEADS		
K202	NQR0129-002X	FERRITE BEADS		
K203	NQR0339-001X	FERRITE BEADS		
K204	NQR0339-001X	FERRITE BEADS		
K501	NQR0339-001X	FERRITE BEADS		
K504	NQR0339-001X	FERRITE BEADS		
K519	NQR0339-001X	FERRITE BEADS		
K555	NQR0129-002X	FERRITE BEADS		
K556	NQR0129-002X	FERRITE BEADS		
K557	NQR0129-002X	FERRITE BEADS		
K558	NQR0129-002X	FERRITE BEADS		
K559	NQR0129-002X	FERRITE BEADS		
K560	NQR0129-002X	FERRITE BEADS		
K562	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K563	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K564	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K565	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K566	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K567	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K568	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K569	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K570	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
X301	NAX0566-001X	C RESONATOR	16.934MHz	
X571	NAX0550-001X	CRYSTAL	27.000MHz	